



J.P. Morgan SE

as Issuer

**Programme for the issuance
of
Notes, Warrants and Certificates**

Arranger for the Programme

J.P. Morgan SE

Dealer for the Programme

J.P. Morgan SE

The Securities, and, in certain instances, the securities to be delivered upon redemption or exercise of the Securities, if any, have not been and will not be registered under the U.S. Securities Act of 1933, as amended (the "**Securities Act**") or the laws of any state or other jurisdiction of the United States, and trading in the Securities has not been approved by the U.S. Commodity Futures Trading Commission ("**CFTC**") under the U.S. Commodity Exchange Act, as amended (the "**Commodity Exchange Act**"). Subject to certain exceptions, the Securities may not be offered, sold, transferred, pledged, assigned, delivered, exercised or redeemed at any time within the United States or to, or for the account or benefit of, any U.S. Person that is not an affiliate (as defined in Rule 405 under the Securities Act) of the Issuer.

TABLE OF CONTENTS

I.	GENERAL DESCRIPTION OF THE PROGRAMME	10
1.	Subject of this Base Prospectus.....	10
2.	Information about the Issuer	10
3.	Offeror and financial intermediaries	10
4.	Information on the issued Securities	10
5.	Listing and trading	12
6.	Public offer of securities under the programme	12
7.	Reasons for the offer	12
8.	General Information.....	12
II.	RISK FACTORS	13
A.	RISKS IN CONNECTION WITH THE ISSUER	13
B.	RISK FACTORS ASSOCIATED WITH THE PRODUCT STRUCTURE OF THE SECURITIES.....	13
1.	Product No. 1. Specific risk factors applicable to Warrants.....	13
1.1.	Risk of total loss	13
1.2.	Risk due to the leverage effect.....	14
1.3.	Risk related to the limited term of Warrants.....	14
2.	Product No. 2. Specific risk factors applicable to Turbo Warrants and/or X-Turbo Warrants.....	15
2.1.	Risk of a total loss in the case of the occurrence of a Knock-Out Event	15
2.2.	Risk due to the leverage effect.....	16
2.3.	Specific risks applicable to X-Turbo Warrants.....	16
2.4.	Risk related to the limited term of Turbo Warrants and/or X-Turbo Warrants.....	17
3.	Product No. 3. Specific risk factors applicable to Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates	17
3.1.	Risk of a total loss in the case of the occurrence of a Knock-Out Event	17
3.2.	Adjustment, replacement or determination of parameters relevant for the regular adjustment of the Strike and/or Knock-Out Barrier in the reasonable discretion of the Issuer and/or Calculation Agent.....	20
3.3.	Risk due to the leverage effect.....	21
3.4.	Risks relating to the term of the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates	21
3.5.	Specific risks applicable to Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates	22
4.	Product No. 4. Specific risk factors applicable to Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates	22
4.1.	Risk of a total loss in the case of the occurrence of a Stop-Loss Event.....	22
4.2.	Adjustment, replacement or determination of certain parameters relevant for the regular adjustment of the Strike and/or Stop-Loss Barrier in the reasonable discretion of the Issuer and/or Calculation Agent.....	25
4.3.	Risk due to the leverage effect.....	26
4.4.	Risks relating to the term of the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates	26
4.5.	Specific risks applicable to X-Mini Future Warrants and/or X-Turbo Certificates.....	27
5.	Product No. 5. Specific risk factors applicable to Factor Warrants	27
5.1.	Risk in the case of Factor Warrants, that are not linked to a Factor Index as Reference Asset	27

5.1.1.	Risk of total loss	27
5.1.2.	Adjustment, replacement or determination of certain parameters relevant for the regular adjustment of the Ratio, Strike and/or Adjustment Barrier in the reasonable discretion of the Issuer and/or Calculation Agent	28
5.1.3.	Risk due to the leverage effect	29
5.1.4.	Risk factors in connection with the regular adjustment of the Strike and the Ratio	29
5.1.5.	Risk Factors due to the intraday adjustment	31
5.1.6.	Risk factors relating to the unlimited term of the Factor Warrants, the Issuer's extraordinary and ordinary termination right and particularities in relation to the exercise of the Factor Warrants by the Holder	31
5.2.	Risk in the case of Factor Warrants that are linked to a Factor Index as Reference Asset	32
5.2.1.	Risk of total loss	32
5.2.2.	Risk factors related to Securities with Management Fee or Quanto Fee	32
5.2.3.	Risk factors in connection with the concept of Factor Indices	33
5.2.4.	Risk Factors due to the intraday index adjustment	35
5.2.5.	Risk factors relating to the unlimited term of the Factor Warrants, the Issuer's extraordinary and ordinary termination right and particularities in relation to the exercise of the Factor Warrants by the Holder	36
6.	Product No. 6. Specific risk factors applicable to Discount Certificates	36
6.1.	Risk of total loss	36
6.2.	Settlement Amount is limited to Maximum Amount	36
7.	Product No. 7. Specific risk factors applicable to Barrier Discount Certificates	37
7.1.	Risk of total loss in the case of a Barrier Event	37
7.2.	Settlement Amount is limited to Maximum Amount	37
8.	Product No. 8. Specific risk factors applicable to Bonus Certificates	37
8.1.	Risk of total loss in the case of a Barrier Event	37
9.	Product No. 9. Specific risk factors applicable to Reverse Bonus Certificates	38
9.1.	Risk of a total loss in the case of a Barrier Event	38
9.2.	Leverage effect in the case of Reverse Bonus Certificates due to the reverse structure	39
9.3.	Limited yield potential due to reverse structure and irrespective of a Cap	39
10.	Product No. 10. Specific risk factors applicable to Capped Bonus Certificates	39
10.1.	Risk of total loss in the case of a Barrier Event	39
10.2.	Settlement Amount is limited to Maximum Amount	40
11.	Product No. 11. Specific risk factors applicable to Capped Reverse Bonus Certificates ..	40
11.1.	Risk of a total loss in the case of a Barrier Event	40
11.2.	Leverage effect in the case of Capped Reverse Bonus Certificates due to the reverse structure	41
11.3.	Settlement Amount is limited to Maximum Amount	41
12.	Product No. 12. Specific risk factors applicable to Reverse Convertibles	41
12.1.	Risk of total loss in the case of Reverse Convertibles	41
12.2.	Settlement Amount is limited to Maximum Amount	42
13.	Product No. 13. Specific risk factors applicable to Barrier Reverse Convertibles	42
13.1.	Risk of total loss in the case of Barrier Reverse Convertibles	42
13.2.	Settlement Amount is limited to Maximum Amount	44
14.	Product No. 14. Specific risk factors applicable to Open End Certificates	44
14.1.	Risk of total loss	44

14.2.	Risk factors related to Open End Certificates with Management Fee or Quanto Fee or Transaction Fee.....	44
14.3.	Risk factors relating to the unlimited term of the Open End Certificates, the Issuer's ordinary and extraordinary termination right and particularities in relation to the exercise of the Open End Certificates by the Holder.....	45
14.4.	Risk factors in connection with an extraordinary automatic exercise.....	46
15.	Product No. 15. Specific risk factors applicable to Discount Warrants	46
15.1.	Risk of total loss	46
15.2.	Risk due to the leverage effect.....	47
15.3.	Risk due to the Cap and/or Floor	47
15.4.	Risk related to the limited term of Discount Warrants	47
16.	Product No. 16. Specific risk factors applicable to Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates	47
16.1.	Risk of a total loss in the case of the occurrence of a Stop-Loss Event.....	47
16.2.	Risk due to the leverage effect.....	50
16.3.	Specific risks applicable to Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates.....	50
16.4.	Risk related to the limited term of Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates	51
17.	Product No. 17. Specific risk factors applicable to Capital Protected Certificates	51
17.1.	Risk of loss	51
18.	Product No. 18. Specific risk factors applicable to Capped Capital Protected Certificates.....	51
18.1.	Risk of loss	51
18.2.	Settlement Amount is limited to Maximum Amount.....	52
19.	Product No. 19. Specific risk factors applicable to Participation Certificates.....	52
19.1.	Risk of total loss	52
19.2.	Risk factors related to Participation Certificates with Management Fee or Quanto Fee	52
19.3.	Risk related to the limited term of Participation Certificates	53
C.	RISK FACTORS IN RELATION TO THE TYPE OF REFERENCE ASSET	53
1.	Risks associated with Shares, depositary receipts representing a share or exchange traded funds (ETF) as Reference Asset.....	54
1.1.	Risks in connection with the performance of the price of the Reference Asset.....	54
1.2.	Risks in connection with determinations made by the Calculation Agent.....	54
1.3.	Additional risks associated with American Depositary Receipts and Global Depositary Receipts as Reference Asset.....	55
1.4.	Additional risks associated with shares of Exchange Traded Funds as Reference Asset	56
2.	Risks associated with Indices as Reference Asset.....	60
2.1.	Risks in connection with the performance of the price of the Reference Asset.....	60
2.2.	Risks in relation to dividends.....	61
2.3.	Risks in relation to a change in the composition or discontinuance of an Index ...	61
2.4.	Risks in relation to Index Modification, Index Cancellation, Index Disruption and Correction	61
2.5.	Risks in relation to determinations made by the Calculation Agent.....	62
2.6.	Particular risks associated with exchange traded futures and options contracts on underlying indices.....	62
3.	Risks associated with Commodities as Reference Asset.....	63
3.1.	Risks in connection with the price development of Commodities	63

3.2.	Risks in relation Securities linked to commodity futures contracts	64
3.3.	Risks in relation to legal and regulatory changes relating to Commodities	64
3.4.	Risks in relation to disruption fallback provisions.....	66
4.	Risks associated with Futures Contracts as Reference Asset	66
4.1.	Risks in connection with the price development of Futures Contracts	66
4.2.	Risks in connection with rolling of Futures Contracts	67
4.3.	Risks in connection with dividend futures contracts.....	68
4.4.	Risks in relation to legal and regulatory changes relating to Futures Contracts	68
5.	Risks associated with Foreign Exchange Rates as Reference Asset	69
5.1.	Risks related to the development of the price of the Foreign Exchange Rates	69
5.2.	Risks of manipulation	69
D.	RISK FACTORS WHICH APPLY TO ALL OR SEVERAL TYPES OF REFERENCE ASSETS.....	70
1.	Risks in connection with currency conversion.....	70
2.	Certain risks in relation to the Benchmark Regulation	71
3.	Risks due to the dependency of the market value or return on the Securities on the performance of the Reference Asset	71
4.	Risks in connection with investments in emerging markets	72
E.	RISK FACTORS ARISING FROM THE CONDITIONS OF THE SECURITIES	73
1.	Risks in connection with an extraordinary termination.....	73
2.	Risks in connection with an ordinary termination.....	74
3.	Risks in connection with market disruptions and adjustment measures.....	74
4.	Risks in connection with discretionary determinations by the Calculation Agent	75
5.	Risks in connection with a Payment Disruption Event	75
6.	Risks in relation to Securities to be settled by way of physical delivery	75
7.	Risks in connection with a substitution of the Issuer	76
8.	Risks in connection with amendment of terms and conditions of the Securities	77
9.	Risks in connection with an Extraordinary Hedge Disruption Event.....	77
F.	RISK FACTORS ASSOCIATED WITH THE INVESTMENT IN THE SECURITIES	78
1.	Risks in relation to the market value of the Securities	78
2.	Risks in relation to trading of the Securities	80
3.	Risks relating to inflation	81
4.	Hedging risks	81
5.	Risks in connection with the holding of Securities	81
G.	RISK FACTORS ASSOCIATED WITH TAXATION AND REGULATION OF THE SECURITIES.....	82
1.	Risks associated with taxation of the Securities.....	82
1.1.	Risks due to changes in tax law	82
1.2.	Termination right of the Issuer due to withholding tax.....	83
2.	Risks in relation to the regulation and reform of benchmarks	83
3.	Discontinuance and/or loss of representativeness of Interbank Offered Rates ("IBORs") and related rates	86
4.	Risks relating to USD LIBOR.....	87
5.	Risk in relation to compliance with obligations applicable under the Short Selling Regulation or the UK Short Selling Regulation (as applicable).....	90
H.	RISK FACTORS ASSOCIATED WITH CONFLICTS OF INTEREST	91
III.	GENERAL DESCRIPTION OF THE PROGRAMME AND THE SECURITIES	94
1.	Issuer.....	94
2.	Listing and admission to trading	94

3.	Interests of natural and legal persons involved in the issue	94
4.	Types of Securities.....	94
5.	Reference Assets	94
6.	Issuance of Securities	95
7.	Form of Securities	95
8.	Programme Agent	96
9.	Post-Issuance Information.....	96
10.	Terms and Conditions of the Offer	96
11.	Indication of yield	96
12.	Explanation of mechanism of Securities	97
12.1.	Product No. 1. Explanation of mechanism of Warrants.....	97
12.2.	Product No. 2. Explanation of mechanism of Turbo Warrants and/or X-Turbo Warrants.....	98
12.3.	Product No. 3. Explanation of mechanism of Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates	99
12.4.	Product No. 4. Explanation of mechanism of Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates.....	100
12.5.	Product No. 5. Explanation of mechanism of Factor Warrants	101
12.6.	Product No. 6. Explanation of mechanism of Discount Certificates	104
12.7.	Product No. 7. Explanation of mechanism of Barrier Discount Certificates	104
12.8.	Product No. 8. Explanation of mechanism of Bonus Certificates.....	104
12.9.	Product No. 9. Explanation of mechanism of Reverse Bonus Certificates	105
12.10.	Product No. 10. Explanation of mechanism of Capped Bonus Certificates.....	105
12.11.	Product No. 11. Explanation of mechanism of Capped Reverse Bonus Certificates.....	105
12.12.	Product No. 12. Explanation of mechanism of Reverse Convertibles	105
12.13.	Product No. 13. Explanation of mechanism of Barrier Reverse Convertibles	106
12.14.	Product No. 14. Explanation of mechanism of Open End Certificates	107
12.15.	Product No. 15. Explanation of mechanism of Discount Warrants	108
12.16.	Product No. 16. Explanation of mechanism of Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates	109
12.17.	Product No. 17. Explanation of mechanism of Capital Protected Certificates	110
12.18.	Product No. 18. Explanation of mechanism of Capped Capital Protected Certificates.....	110
12.19.	Product No. 19. Explanation of mechanism of Participation Certificates.....	111
IV.	TERMS AND CONDITIONS OF THE SECURITIES	112
A.	GENERAL CONDITIONS	112
	Section 1 – Security Right, Status, Currency Conversion and Rounding.....	113
	Section 2 – Exercise	116
	Section 3 – Settlement.....	118
	Section 4 – Coupon Payments.....	131
	Section 5 – Knock-Out Event and/or Stop-Loss Event	134
	Section 6 – Strike, Adjustment of Strike	139
	Section 7 – Ratio, Adjustment of Ratio	147
	Section 8 – Knock-Out Barrier, Stop-Loss Barrier, Adjustment of Knock Out Barrier, Adjustment of Stop-Loss Barrier	150
	Section 9 – Barrier Event	151

Section 10 – Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination	152
Section 11 – Ordinary Termination Right of the Issuer	161
Section 12 – Holder, Transferability	161
Section 13 – Agents.....	162
Section 14 – Modifications.....	163
Section 15 – Purchase, Cancellation and Further Issues	164
Section 16 – Notices.....	165
Section 17 – Substitution.....	165
Section 18 – Prescription.....	166
Section 19 – Governing Law, Place of Jurisdiction	167
ANNEX I TO THE GENERAL CONDITIONS - REFERENCE ASSET LINKED CONDITIONS	168
A. SHARE LINKED PROVISIONS.....	169
B. INDEX LINKED PROVISIONS.....	184
C. COMMODITY LINKED PROVISIONS.....	195
D. FUTURES CONTRACT LINKED PROVISIONS	202
E. FX LINKED PROVISIONS	212
V. FORM OF ISSUE SPECIFIC CONDITIONS	218
Part A - Payout Specific Terms	218
Product No. 1. Payout Specific Terms applicable to Warrants	218
Product No. 2. Payout Specific Terms applicable to Turbo Warrants and/or X-Turbo Warrants.....	218
Product No. 3. Payout Specific Terms applicable to Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates	219
Product No. 4. Payout Specific Terms applicable to Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates.....	221
Product No. 5. Payout Specific Terms applicable to Factor Warrants	223
Product No. 6. Payout Specific Terms applicable to Discount Certificates	227
Product No. 7. Payout Specific Terms applicable to Barrier Discount Certificates	228
Product No. 8. Payout Specific Terms applicable to Bonus Certificates	229
Product No. 9. Payout Specific Terms applicable to Reverse Bonus Certificates.....	229
Product No. 10. Payout Specific Terms applicable to Capped Bonus Certificates	230
Product No. 11. Payout Specific Terms applicable to Capped Reverse Bonus Certificates.....	231
Product No. 12. Payout Specific Terms applicable to Reverse Convertibles.....	232
Product No. 13. Payout Specific Terms applicable to Barrier Reverse Convertibles	233
Product No. 14. Payout Specific Terms applicable to Open End Certificates	235
Product No. 15. Payout Specific Terms applicable to Discount Warrants	237
Product No. 16. Payout Specific Terms applicable to Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates	238
Product No. 17. Payout Specific Terms applicable to Capital Protected Certificates	240
Product No. 18. Payout Specific Terms applicable to Capped Capital Protected Certificates	240
Product No. 19. Payout Specific Terms applicable to Participation Certificates	241
Part B - General Terms.....	244
VI. FORM OF FINAL TERMS.....	255
VII. USE OF PROCEEDS.....	263
VIII. SUBSCRIPTION AND SALE.....	264

IX.	TAXATION	268
X.	IMPORTANT LEGAL INFORMATION	276
1.	Responsibility Statements	276
2.	Consent to use the Base Prospectus	276
3.	Approval of the Base Prospectus	277
4.	Categories of potential investors	277
XI.	INFORMATION ABOUT THE ISSUER	278
XII.	GENERAL INFORMATION	279
1.	Authorisations	279
2.	Availability of Base Prospectus	279
3.	De-listing.....	279
4.	Information incorporated by reference.....	280

I. GENERAL DESCRIPTION OF THE PROGRAMME

The following information constitutes a general description of the offering programme pursuant to Article 25(1)(b) of the Commission Delegated Regulation (EU) 2019/980 of 14 March 2019 as amended from time to time (the "**Delegated Regulation**") and does not claim to be exhaustive. Complete information about the Issuer and the offer of the Securities is therefore only possible if the final conditions of the respective individual issue (the "**Final Terms**") are read together with the summary for the individual issue (the "**Issue-Specific Summary**") and with the remaining part of the Base Prospectus (including any supplements).

1. Subject of this Base Prospectus

This Base Prospectus (the "**Base Prospectus**") has been drawn up in accordance with Article 8 of Regulation (EU) 2017/1129 of the European Parliament and of the Council of 14 June 2017 (the "**Prospectus Regulation**") in conjunction with Article 15 and Annexes 14, 17, 21 and 22 of the Delegated Regulation.

The information in the Base Prospectus is supplemented, corrected or clarified by way of future supplements under the conditions as laid out in Article 23 of the Prospectus Regulation. Therefore, when investing in the Securities, an investor should take into account any supplements published on the website <https://www.jpmorgan-zertifikate.de/> under "Dokumente". If the Securities issued under the Base Prospectus relate to an offer to the public, investors who have already agreed to purchase or subscribe for the Securities before the supplement is published shall have the right to withdraw their acceptances within three working days. If the Securities are acquired or subscribed through a financial intermediary, that financial intermediary will assist investors in exercising their right to withdraw acceptances.

2. Information about the Issuer

J.P. Morgan SE ("**JPMSE**" or the "**Issuer**") is the issuer of the Securities issued under the Base Prospectus. JPMSE was incorporated as a stock corporation (Aktiengesellschaft) in Germany under the legal and commercial name J.P. Morgan AG ("**JPMAG**"). On 22 January 2022, J.P. Morgan Bank (Ireland) PLC and J.P. Morgan Bank Luxembourg S.A. have merged into JPMAG. Subsequent to the Merger, JPMAG has adopted the legal form of a Societas Europaea (*Europäische Aktiengesellschaft*) and has thereby become "J.P. Morgan SE" on 22 January 2022. JPMSE has a full banking license in accordance with section 1 paragraph 1 of the German Banking Act (*Kreditwesengesetz – KWG*) and is supervised by the European Central Bank and the German Federal Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht – BaFin*). JPMSE has its registered office in Frankfurt am Main, Germany.

3. Offeror and financial intermediaries

The Securities issued by JPMSE will be offered by J.P. Morgan SE, Taunustor 1 (TaunusTurm), 60310 Frankfurt am Main, Germany, with the legal entity identifier (LEI) 549300ZK53CNGEEI6A29.

If and to the extent this is so expressed in the applicable Final Terms and provided that the Base Prospectus is still valid according to Article 12 of the Prospectus Regulation, the Issuer may consent to the use of the Base Prospectus and the applicable Final Terms for the subsequent resale or final placement of Securities by financial intermediaries in relation to the offer state(s) during which the relevant offer period during which subsequent resale or final placement of the Securities can be made.

4. Information on the issued Securities

Under the Base Prospectus the Issuer may issue certificates, notes or warrants. The Securities have the characteristic such that the level of the settlement amount or, in the case of a physical delivery, the equivalent value of the delivered reference asset depend on the development of the reference asset. The Securities may be linked to a share or a depositary receipt representing a share or an exchange traded fund (ETF), an equity index, a commodity, a futures contract or a foreign exchange rate as reference asset.

The following product structures can be issued under the Base Prospectus:

Product No. 1. Warrants

Product No. 2. Turbo Warrants and/or X-Turbo Warrants

Product No. 3. Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates

Product No. 4. Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates

Product No. 5. Factor Warrants

Product No. 6. Discount Certificates

Product No. 7. Barrier Discount Certificates

Product No. 8. Bonus Certificates

Product No. 9. Reverse Bonus Certificates

Product No. 10. Capped Bonus Certificates

Product No. 11. Capped Reverse Bonus Certificates

Product No. 12. Reverse Convertibles

Product No. 13. Barrier Reverse Convertibles

Product No. 14. Open End Certificates

Product No. 15. Discount Warrants

Product No. 16. Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates

Product No. 17. Capital Protected Certificates

Product No. 18. Capped Capital Protected Certificates

Product No. 19. Participation Certificates

A detailed description of the individual product structures and their mechanism can be found in Section "III.12 Explanation of mechanism of Securities" of the Base Prospectus.

A detailed description of the risks associated with an investment in the Securities which are specific to the Securities and which the Issuer believes are material for an informed investment decision can be found in Section "II. Risk Factors" of the Base Prospectus. A detailed description of the risk factors associated with an investment in the Securities which are specific to the Issuer and which the Issuer believes are material for an informed investment decision can be found in Section "II. Risk Factors" of the JPMSE Registration Document. These risk factors are presented in categories and sub-categories depending on their nature. In the case of several risks in a category and sub-category, the most material risk of each category and sub-category are mentioned first. The risks listed after the most material risks are not distinguished by the Issuer by the level of the materiality. The assessment of materiality of the risks has been made by the Issuer as of the date of this Base Prospectus and/or the date the JPMSE Registration Document, respectively, on the basis of the probability of their occurrence and the expected magnitude of their negative impact. The magnitude of the negative impact of each of the below risk factors on the relevant Securities is described by reference to the magnitude of potential losses of the invested capital (including a potential total loss), the incurrence of additional costs in relation to the Securities or limitations of returns on the Securities. An assessment of the probability of the occurrence of risks and the magnitude of the negative impact also depend on the relevant reference asset, the relevant parameters with regard to the Securities set out in the applicable Final Terms and the circumstances existing as of the date of the relevant Final Terms.

5. Listing and trading

The Issuer may introduce or apply for admission of the Securities to one or more stock exchange(s) or multilateral trading system(s) or regulated or unregulated market(s). The Issuer may also issue Securities which are not admitted to trading or listed on any market.

6. Public offer of securities under the programme

The Securities issued under the Base Prospectus may be publicly offered in the relevant offer states during the relevant offer period, as determined in the applicable Final Terms. **The validity of this Base Prospectus expires twelve months after its approval (28 September 2024). The obligation to supplement the Base Prospectus in the event of significant new factors, material mistakes or material inaccuracies does not apply after duration of the validity of the Base Prospectus.**

In the case of an offer period which exceeds the duration of the validity of the Base Prospectus, such public offer may be continued on the basis of one or more succeeding base prospectuses until the end of the respective offer period, to the extent such succeeding base prospectuses envisage a continuation of the public offer of the Securities. In this context, these Final Terms are, in each case, to be read in conjunction with the most recent Succeeding Base Prospectus.

7. Reasons for the offer

The net amount of the proceeds from each issue of Securities will be used by the Issuer for its general corporate purposes (including hedging arrangements). To the extent that the net proceeds of an issue of Securities are not applied for the purposes of making profit and/or hedging certain risks, the relevant Final Terms shall contain further information including the principal intended uses and the order of priority in which such uses are ranked (in any case, the Issuer is free in the use of the proceeds of an issue of Securities).

8. General Information

No one has the right to disseminate any information or make statements that are not included in the Base Prospectus in connection with the issue, sale and offering of the Securities. The Issuer and the Dealer reject any liability for information from third parties that are not contained in the Base Prospectus.

Neither the delivery of the Base Prospectus nor any sale made in connection herewith shall, under any circumstances, create any implication (i) that there has been no change in the affairs of the Issuer since the date hereof or the date upon which the Base Prospectus has been most recently supplemented or (ii) that there has been no adverse change in the financial position of the Issuer, since the date hereof or the date upon which the Base Prospectus has been most recently supplemented or (iii) that any other information supplied in connection with the Programme is correct as of any time subsequent to the date on which it is supplied or, if different, the date indicated in the document containing the same.

Neither the Base Prospectus nor any supplements thereto nor the respective Final Terms shall constitute an offer or a solicitation to any person to buy any Securities issued under the Base Prospectus and should not be construed as a recommendation of the Issuer or the Dealer to purchase securities. The distribution of the Base Prospectus and the offer and sale of Securities may be subject to legal restrictions in certain jurisdictions. Persons into whose possession the Base Prospectus or Securities comes are obliged to inform themselves about and comply with such restrictions, in particular restrictions in connection with the distribution of the Base Prospectus and the offer or sale of Securities in the United States of America and the offer or sale of Securities in the member states of the European Economic Area. The Securities may only be offered or sold if all applicable securities laws and other provisions applicable in the jurisdiction in which the purchase, offer, sale or delivery of securities is intended or in which the Base Prospectus is distributed or held are complied with, and if all consents and approvals required under this jurisdiction for the purchase, offer, sale or delivery of securities have been obtained. The Issuer and the Dealer make no representation as to the legality of the distribution of the Base Prospectus and assume no responsibility that the distribution of the Base Prospectus or a public offering is permissible. For further information on selling restrictions, see Section VIII. of the Base Prospectus.

II. RISK FACTORS

The purchase of Securities of the Issuer is subject to risks.

These risk factors are presented in categories and sub-categories depending on their nature. If more than one risk factor is included in a category or sub-category, the risks in each category or sub-category are classified according to their materiality. The most material risks are mentioned first. The assessment of materiality of the risks has been made by the Issuer as of the date of this Base Prospectus on the basis of the probability of their occurrence and the expected magnitude of their negative impact. The magnitude of the negative impact of each of the below risk factors on the relevant Securities is described by reference to the magnitude of potential losses of the invested capital (including a potential total loss), the incurrence of additional costs in relation to the Securities or limitations of returns on the Securities. An assessment of the probability of the occurrence of risks and the magnitude of the negative impact also depends on the relevant reference asset, the relevant parameters with regard to the Securities set out in the applicable Final Terms and the circumstances existing as of the date of the relevant Final Terms.

A. RISKS IN CONNECTION WITH THE ISSUER

The risk factors as set out on pages 3 to 13 of the Registration Document of J.P. Morgan SE dated 2 June 2023 ("**JPMSE Registration Document**") (as lastly supplemented by the first supplement dated 21 July 2023 to the JPMSE Registration Document) which has been approved by the German Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht*), the risk factors as set out on pages 5 to 39 of the Registration Document of J.P. Morgan Structured Products B.V. which has been approved by the CSSF ("**JPMSP Registration Document**") and the risk factor as set out on page 2 of the first supplement dated 12 July 2023 to the JPMSP Registration Document which has been approved by the CSSF are hereby incorporated by reference into this Base Prospectus (detailed information regarding the pages in the JPMSE Registration Document, in the first supplement dated 21 July 2023 to the JPMSE Registration Document and the first supplement dated 12 July 2023 to the JPMSP Registration Document from which information is incorporated by reference, can be found in section "XII. General Information" under "4. Information incorporated by reference").

B. RISK FACTORS ASSOCIATED WITH THE PRODUCT STRUCTURE OF THE SECURITIES

In this category, the specific and material risks associated with the payout profile of each product structure are described. The risks resulting from the payout profile are set out separately with respect to each product structure. The risks in this category are classified according to their materiality based on the assessment of the Issuer. The most material risks are mentioned first.

1. Product No. 1. Specific risk factors applicable to Warrants

1.1. Risk of total loss

In the case of Warrants there is a risk that the Holder suffers significant losses. The lower (in the case of Call Warrants) and/or the higher (in the case of Put Warrants) the Final Level, the lower the Settlement Amount. A total loss occurs if the Final Level is equal to or below (in the case of Call Warrants) or equal to or above (in the case of Put Warrants) the Strike.

The Settlement Amount of Warrants is calculated – in the case of Call Warrants – by the difference between a price of the Reference Asset on the Valuation Date (the "**Final Level**") and the Strike (taking into account the Ratio) and/or – in the case of Put Warrants – by the difference between the Strike and the Final Level (taking into account the Ratio). In the case of Warrants there is a risk that the Holder suffers significant losses up to a total loss of the invested capital. A total loss occurs if the Final Level is equal to or below the Strike (in the case of Call Warrants) and/or equal to or above the Strike (in the case of Put Warrants). If provided for in the relevant Final Terms, the Settlement Amount may be at least equal to a

minimum amount specified in the Final Terms. This minimum amount may be zero or close to zero so that, even if a minimum amount is provided for, the Holder will receive no or only a small redemption.

Holders should consider that JPMorgan Chase & Co. and its consolidated subsidiaries (together "**JPMorgan Chase**") does not commit or is not under any obligation legal or otherwise towards the Holders to quote bid and ask prices for Warrants. Holders should therefore not rely on being able to purchase or sell Warrants at any time.

The price of the Warrants during the term depends in particular on the price of the Reference Asset during the term. Generally, the price of the Warrants falls if the price of the Reference Asset falls (Call Warrants) or rises (Put Warrants). A decrease or increase in the Reference Asset typically has a disproportionately great effect on the price of the Warrants.

In addition to the price of the Reference Asset, the price of the Warrant is also dependent on the volatility of the Reference Asset, whereby a decrease of the expected volatility of the Reference Asset generally leads to a decrease of the price of the Warrant. Furthermore the borrow costs of the Reference Asset, the interest rate level, and any dividend expectations, as well as applicable taxes on any dividend payments will influence the secondary market price of the Warrants. The value of the Warrants will decrease as the time to expiry decreases. Therefore, the absence of an expected move of the Reference Asset will cause the investor to lose a part or all of its invested money.

1.2. Risk due to the leverage effect

The Holder bears the risk of strong price fluctuations of Warrants whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Warrants.

Warrants are particularly risky financial instruments whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Warrants. Leverage effect means that a change in the price of the Reference Asset leads to a disproportionate change in the price of the Warrants. The leverage effect results from the fact that the Holder has to invest a lower capital for an investment in Warrants compared to a direct investment in the Reference Asset. As a rule, the following applies: If the price of the Reference Asset of a Call Warrant declines, the price of the Call Warrant declines disproportionately. If the price of the Reference Asset of a Put Warrant rises, the price of the Put Warrant falls disproportionately. The greater the leverage effect of the Warrants, the higher the risk of losses. Due to the leverage effect the Warrants involve disproportionate risks of loss compared to a direct investment in the Reference Asset (risk of total loss).

1.3. Risk related to the limited term of Warrants

There is a period of time between the exercise notice of the Holder and the determination of the Settlement Amount during which the price of the Reference Asset on the basis of which the Settlement Amount is determined may develop negatively.

The term of Warrants is fixed and is the period from the Issue Date until the Valuation Date. The Settlement Amount of the Warrants is paid out by the Issuer on a specific date defined in the Final Terms. If the Warrants have an "European Style" they are only exercisable on the Valuation Date and cannot be exercised by the Holder on any other day during the term. If the Warrants have an "American Style", the Warrants may be exercised by the Holders during their term. However, all Warrants which have not been exercised during their term are exercised automatically at the end of the term.

In the case of an exercise of Warrants by the Holder, there is a time span between the time at which the Holder declares the exercise of the Warrants and the time when the Settlement Amount is determined as a result of the exercise. Within this time span, the price of the Reference Asset on the basis of which the Settlement Amount is determined may develop to the detriment of the Holder and result in the Settlement Amount being lower than if the Settlement Amount had been determined at the time of the declaration of the exercise and may result in such Settlement Amount being zero (0).

2. Product No. 2. Specific risk factors applicable to Turbo Warrants and/or X-Turbo Warrants

2.1. Risk of a total loss in the case of the occurrence of a Knock-Out Event

In the case of Turbo Warrants and/or X-Turbo Warrants there is a risk that the Holder suffers significant losses. Furthermore, in the case of Turbo Warrants and/or X-Turbo Warrants, there is the risk that the products expire worthless during their term, if a so-called Knock-Out Event has occurred.

The Settlement Amount of Turbo Warrants and/or X-Turbo Warrants is calculated – in the case of Turbo Long Warrants and/or X-Turbo Long Warrants – by the difference between the price of the Reference Asset on the Valuation Date (the "**Final Level**") and the Strike (taking into account the Ratio) and/or – in the case of Turbo Short Warrants and/or X-Turbo Short Warrants – by the difference between the Strike and the Final Level (taking into account the Ratio). In the case of Turbo Warrants and/or X-Turbo Warrants there is a risk that the Holder suffers significant losses up to a total loss of the invested capital. A total loss occurs if the Final Level is equal to or below the Strike (in the case of in case of Turbo Long Warrants and/or X-Turbo Long Warrants) and/or equal to or above the Strike (in the case of Turbo Short Warrants and/or X-Turbo Short Warrants).

Furthermore, Holders in Turbo Warrants and/or X-Turbo Warrants bear the risk that the Turbo Warrants and/or X-Turbo Warrants expire worthless during their term, if a so-called Knock-Out Event has occurred. A "**Knock-Out Event**" occurs, if a price of the Reference Asset defined in the applicable Final Terms (the "**Knock-Out Observation Price**") reaches or falls below (in the case of Turbo Long Warrants and/or X-Turbo Long Warrants) and/or reaches or exceeds (in the case of Turbo Short Warrants and/or X-Turbo Short Warrants) a predefined price or value threshold (the so-called "**Knock-Out Barrier**"). In the case of Turbo Warrants and/or X-Turbo Warrants the Knock-Out Barrier equals the Strike. The Holder must always be aware that even a single reaching or falling below (in the case of Turbo Long Warrants and/or X-Turbo Long Warrants) or reaching or exceeding (in the case of Turbo Short Warrants and/or X-Turbo Short Warrants) of the Knock-Out Barrier by the Knock-Out Observation Price leads to the occurrence of a Knock-Out Event. In this context, it should be noted that the determination of the occurrence of a Knock-Out Event may be based on levels of the Reference Asset which are determined during regular trading sessions other than the trading sessions of Turbo Warrants and/or X-Turbo Warrants, so that there is a risk for the Holder that he is not aware or not aware in time of the threat of a Knock-Out Event (in relation to particularities for X-Turbo Warrants see below under "Specific risks applicable to X-Turbo Warrants").

If a Knock-Out Event occurs, the term of the Turbo Warrants and/or X-Turbo Warrants ends automatically, the Security Right or the right to payment of a Settlement Amount expires automatically and the Turbo Warrants and/or X-Turbo Warrants expire and are repaid at the Knock-Out Settlement Amount as specified in the relevant Final Terms, corresponding to zero or a value close to zero. Consequently, in this case the Holder will receive no or only a small redemption in the case of the occurrence of a Knock-Out Event. The purchase price paid by the Holder for the Turbo Warrants and/or X-Turbo Warrants is lost. The Holder suffers a (financial) total loss. Holders should note in this context that the value of the Turbo Warrants and/or X-Turbo Warrants is reduced disproportionately compared to warrants, if the price of the Reference Asset approaches a Knock-Out Barrier.

An important determinant for the probability of the occurrence of a Knock-Out Event is the volatility of the Reference Asset. The term "**Volatility**" means the fluctuation margin or price movements of the Reference Asset. The higher the Volatility of the Reference Asset, the higher the risk of breaching the Knock-Out Barrier.

Holders cannot rely on being able to exercise their Security Right at all times prior to the occurrence of a Knock-Out Event. Even if all other exercise preconditions set forth in the Conditions are fulfilled, an exercise is impossible on the day on which a Knock-Out Event occurs. All submitted Exercise Notices that have not been executed become automatically void on the occurrence of the Knock-Out Event.

It should be noted that no continuous bid and ask prices for the Turbo Warrants and/or X-Turbo Warrants may be quoted by JPMorgan Chase on the secondary market outside of the trading hours of the Reference Asset, if JPMorgan Chase expects a Knock-Out Event to occur due to different price indicators than the official relevant reference asset price of the Reference Asset. Holders should consider in this context that JPMorgan Chase does not commit or is not under any obligation legal or otherwise towards the Holders to quote bid and ask prices for the Turbo Warrants and/or X-Turbo Warrants. Holders should therefore not rely on being able to purchase or sell the Turbo Warrants and/or X-Turbo Warrants at any time.

The price of the Turbo Warrants and/or X-Turbo Warrants during the term depends in particular on the price of the Reference Asset during the term. Generally, the price of the Turbo Warrants and/or X-Turbo Warrants falls if the price of the Reference Asset falls (Turbo Long Warrants and/or X-Turbo Long Warrants) or rises (Turbo Short Warrants and/or X-Turbo Short Warrants). A decrease or increase in the Reference Asset typically has a disproportionately great effect on the price of the Turbo Warrants and/or X-Turbo Warrants. In addition to the price of the Reference Asset, the price of the Turbo Warrants and/or X-Turbo Warrants is also dependent on the volatility of the Reference Asset, the lending costs, the interest rate level, and any dividend expectations, if applicable. The price of Turbo Warrants and/or X-Turbo Warrants usually also reflects the so-called gap risk. This is the risk of price jumps in the Reference Asset, for example between the close of trading on the previous day and the start of trading on the following trading day, that could trigger a Knock-Out Event. The hedging costs of these gap risks can be subject to considerable fluctuations depending on the market situation and are influenced by the volatility of the Reference Asset, the spread between the price of the Reference Asset and the Strike and the time of day, among other factors. In the case of Turbo Warrants and/or X-Turbo Warrants the Holder bears no direct gap risk since the loss is limited to a total loss and there is no obligation to make additional payments. However, the gap risk is usually passed on to the purchasers of the Turbo Warrants and/or X-Turbo Warrants through the price settings in the secondary market, i.e. the Holders bear the gap risk indirectly. Since the gap risks can change significantly over time, this leads to price risks in the product and this can have a negative impact on the pricing of the product in the secondary market, even if the price of the Reference Asset moves in the expected direction. A retrospective analysis may show that the Issuer assessed the gap risk as too high or too low.

2.2. Risk due to the leverage effect

The Holder bears the risk of strong price fluctuations of Turbo Warrants and/or X-Turbo Warrants whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Turbo Warrants and/or X-Turbo Warrants.

Turbo Warrants and/or X-Turbo Warrants are particularly risky financial instruments whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Turbo Warrants and/or X-Turbo Warrants. Leverage effect means that a change in the price of the Reference Asset leads to a disproportionate change in the price of the Turbo Warrants and/or X-Turbo Warrants. The leverage effect results from the fact that the Holder has to invest a lower capital for an investment in Turbo Warrants and/or X-Turbo Warrants compared to a direct investment in the Reference Asset. As a rule, the following applies: If the price of the Reference Asset of a Turbo Long Warrant and/or X-Turbo Long Warrant declines, the price of the Turbo Long Warrant and/or X-Turbo Long Warrant declines disproportionately. If the price of the Reference Asset of a Turbo Short Warrant and/or X-Turbo Short Warrant rises, the price of the Turbo Short Warrant and/or X-Turbo Short Warrant falls disproportionately. The greater the leverage effect of the Turbo Warrants and/or X-Turbo Warrants, the higher the risk of losses. Due to the leverage effect the Turbo Warrants and/or X-Turbo Warrants involve disproportionate risks of loss compared to a direct investment in the Reference Asset (risk of total loss).

2.3. Specific risks applicable to X-Turbo Warrants

In the case of X-Turbo Warrants the period during which a Knock-Out Event may occur is longer; therefore, the probability that a Knock-Out Event occurs is increased.

In the case of X-Turbo Warrants Holders should note that the Knock-Out Observation Price relevant for determining the Knock-Out Event will not only take into account prices of the Reference Asset (e.g. the DAX®), but also prices of an additional index, the x-index (e.g. the X-DAX®), as specified in the applicable Final Terms. The x-index is calculated outside of the usual trading hours of the Reference Asset (e.g. the X-DAX® is distributed from 8:00 am until DAX-opening and from 5:30 pm until 10:15 pm and the DAX® is usually calculated from 9:00 am until 5:30 pm). As a consequence the period during which a Knock-Out Event may occur is longer than in the case of Turbo Warrants which are not linked to an x-index. Due to the extension of the Knock-Out Observation Period the probability that a Knock-Out Event occurs is increased. This risk is even further increased due to a higher probability of price spikes during the less liquid trading hours in case of most x-indices.

Holders of X-Turbo Warrants should also note that the calculation of the Settlement Amount will not take into account the price of the respective x-index, but only the Final Value of the Reference Asset. This means that Holders will not benefit if the relevant price of the x-index is higher compared to the Final Value of the Reference Asset (in the case of X-Turbo Long Warrants) or if the relevant price of the x-index is lower compared to the Final Value of the Reference Asset (in the case of X-Turbo Short Warrants).

2.4. Risk related to the limited term of Turbo Warrants and/or X-Turbo Warrants

Turbo Warrants and/or X-Turbo Warrants are only exercisable on the Valuation Date and cannot be exercised by the Holder on any other day during the term.

The term of Turbo Warrants and/or X-Turbo Warrants is fixed and is, subject to the occurrence of a Knock-Out Event, the period from the Issue Date until the Valuation Date. The Settlement Amount of the Turbo Warrants and/or X-Turbo Warrants is paid out by the Issuer on a specific date defined in the Final Terms. The Turbo Warrants and/or X-Turbo Warrants have a "European Style", so they are only exercisable on the Valuation Date and cannot be exercised by the Holder on any other day during the term.

3. Product No. 3. Specific risk factors applicable to Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates

3.1. Risk of a total loss in the case of the occurrence of a Knock-Out Event

In the case of Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates there is a risk that the Holder suffers significant losses. Furthermore, in the case of Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates, there is the risk that the products expire worthless during their term, if a so-called Knock-Out Event has occurred.

The Settlement Amount of Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates is calculated – in the case of Unlimited Turbo Long Warrants and/or BEST Turbo Certificates Long and/or Unlimited X-Turbo Long Warrants and/or BEST X-Turbo Certificates Long – by the difference between the price of the Reference Asset on the Valuation Date (the "**Final Level**") and the current Strike (taking into account the Ratio) and/or – in the case of Unlimited Turbo Short Warrants and/or BEST Turbo Certificates Short and/or Unlimited X-Turbo Short Warrants and/or BEST X-Turbo Certificates Short – by the difference between the current Strike and the Final Level (taking into account the Ratio). In the case of Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates there is a risk that the Holder suffers significant losses up to a total loss of the invested capital. A total loss occurs if the Final Level is equal to or below the current Strike (in the case of in case of Unlimited Turbo Long Warrants and/or BEST Turbo Certificates Long and/or Unlimited X-Turbo Long Warrants and/or BEST X-Turbo Certificates Long) and/or equal to or above the Strike (in the case of Unlimited Turbo Short Warrants and/or BEST Turbo Certificates Short and/or Unlimited X-Turbo Short Warrants and/or BEST X-Turbo Certificates Short).

Furthermore, Holders in Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates bear the risk that the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates expire worthless during their term, if a so-called Knock-Out Event has occurred. A "**Knock-Out Event**" occurs, if a price of the Reference Asset defined in the applicable Final Terms (the "**Knock-Out Observation Price**") reaches or falls below (in the case of Unlimited Turbo Long Warrants and/or BEST Turbo Certificates Long and/or Unlimited X-Turbo Long Warrants and/or BEST X-Turbo Certificates Long) and/or reaches or exceeds (in the case of Unlimited Turbo Short Warrants and/or BEST Turbo Certificates Short and/or Unlimited X-Turbo Short Warrants and/or BEST X-Turbo Certificates Short) a predefined price or value threshold (the so-called "**Knock-Out Barrier**"). In the case of Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates the current Knock-Out Barrier equals the current Strike. The Holder must always be aware that even a single reaching or falling below (in the case of Unlimited Turbo Long Warrants and/or BEST Turbo Certificates Long and/or Unlimited X-Turbo Long Warrants and/or BEST X-Turbo Certificates Long) or reaching or exceeding (in the case of Unlimited Turbo Short Warrants and/or BEST Turbo Certificates Short and/or Unlimited X-Turbo Short Warrants and/or BEST X-Turbo Certificates Short) of the Knock-Out Barrier by the Knock-Out Observation Price leads to the occurrence of a Knock-Out Event. In this context, it should be noted that the determination of the occurrence of a Knock-Out Event may be based on prices of the Reference Asset which are determined during regular trading sessions other than the trading sessions of Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates, so that there is a risk for the Holder that he is not aware or not aware in time of the threat of a Knock-Out Event (in relation to particularities for Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates see below under "Specific risks applicable to Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates").

If a Knock-Out Event occurs, the term of the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates ends automatically, the Security Right or the right to payment of a Settlement Amount expires automatically and the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates expire and are repaid at the Knock-Out Settlement Amount as specified in the relevant Final Terms, corresponding to zero or a value close to zero. Consequently, in this case the Holder will receive no or only a small redemption in the case of the occurrence of a Knock-Out Event. The purchase price paid by the Holder for the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates is lost. The Holder suffers a (financial) total loss. Holders should note in this context that the value of the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates is reduced disproportionately compared to warrants, if the price of the Reference Asset approaches a Knock-Out Barrier.

An important determinant for the probability of the occurrence of a Knock-Out Event is the volatility of the Reference Asset. The term "**Volatility**" means the fluctuation margin or price movements of the Reference Asset. The higher the Volatility of the Reference Asset, the higher the risk of breaching the Knock-Out Barrier.

It must be noted that in the case of Unlimited Turbo Long Warrants and/or BEST Turbo Certificates Long and/or Unlimited X-Turbo Long Warrants and/or BEST X-Turbo Certificates Long, the probability that a Knock-Out Event occurs is increased due to the daily adjustment of the current Knock-Out Barrier while the price of the Reference Asset remains constant. In the case of Unlimited Turbo Short Warrants and/or BEST Turbo Certificates Short and/or Unlimited X-Turbo Short Warrants and/or BEST X-Turbo Certificates Short, the probability that a Knock-Out Event occurs is increased due to the daily adjustment of the current Knock-Out Barrier, while the price of the Reference Asset remains constant, if the Reference Rate falls below the Financing Spread described in more detail in the Conditions. The longer a Holder holds the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates in these cases, the higher is the risk of loss of the invested capital. In the case of Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo

Certificates linked to Foreign Exchange Rates, the risk that a Knock-Out Event occurs increases, if the difference between the Reference Rate of the Reference Currency and the Reference Rate for the Base Currency is increased (Unlimited Turbo Long Warrants and/or BEST Turbo Certificates Long and/or Unlimited X-Turbo Long Warrants and/or BEST X-Turbo Certificates Long) or decreased (Unlimited Turbo Short Warrants and/or BEST Turbo Certificates Short and/or Unlimited X-Turbo Short Warrants and/or BEST X-Turbo Certificates Short). In the case of Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates linked to Futures Contracts, the particular risk exists that a Knock-Out Event may occur solely due to rolling of the relevant Futures Contract. The daily adjustment of the current Knock-Out Barrier will be made on the basis of the respective current Strike. In the course of the daily adjustment of the current Strike any dividends or cash amounts equivalent to dividends will be taken into account (also considering the relevant Dividend Factor). In the case of Unlimited Turbo Long Warrants and/or BEST Turbo Certificates Long and/or Unlimited X-Turbo Long Warrants and/or BEST X-Turbo Certificates Long linked to a total return index, the current Strike and as a consequence the current Knock-Out Barrier will increase. Accordingly, the probability that a Knock-Out Event occurs will increase. In the case of Unlimited Turbo Long Warrants and/or BEST Turbo Certificates Long and/or Unlimited X-Turbo Long Warrants and/or BEST X-Turbo Certificates Long linked to a price return index, the current Strike will fall by an amount that is less than the gross dividend amount being paid. Accordingly, the probability that a Knock-Out Event occurs will increase. The effect will be greater, the higher the dividends and/or the dividend taxation. In the case of Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates linked to Futures Contracts, the particular risk exists that a Knock-Out Event may occur solely due to rolling of the relevant Futures Contract.

Holders cannot rely on being able to exercise their Security Right at all times prior to the occurrence of a Knock-Out Event. Even if all other exercise preconditions set forth in the Conditions are fulfilled, an exercise is impossible on the day on which a Knock-Out Event occurs. All submitted Exercise Notices that have not been executed become automatically void on the occurrence of the Knock-Out Event.

It should be noted that no continuous bid and ask prices for the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates may be quoted by JPMorgan Chase on the secondary market outside of the trading hours of the Reference Asset, if JPMorgan Chase expects a Knock-Out Event to occur due to different price indicators than the official relevant price of the Reference Asset. Holders should consider in this context that JPMorgan Chase does not commit or is not under any obligation legal or otherwise towards the Holders to quote bid and ask prices for the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates. Holders should therefore not rely on being able to purchase or sell the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates at any time.

The price of the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates during the term depends in particular on the price of the Reference Asset during the term. Generally, the price of the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates falls if the price of the Reference Asset falls (Unlimited Turbo Long Warrants and/or BEST Turbo Certificates Long and/or Unlimited X-Turbo Long Warrants and/or BEST X-Turbo Certificates Long) or rises (Unlimited Turbo Short Warrants and/or BEST Turbo Certificates Short and/or Unlimited X-Turbo Short Warrants and/or BEST X-Turbo Certificates Short). A decrease or increase in the Reference Asset typically has a disproportionately great effect on the price of the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates. In addition to the price of the Reference Asset, the price of the Turbo Warrant and/or X-Turbo Warrants is also dependent on the volatility of the Reference Asset, the lending costs, the interest rate level, and any dividend expectations, if applicable. The price of Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates usually also reflects the so-called gap risk. This is the risk of price jumps in the Reference Asset, for example between the close of trading on the previous day and the

start of trading on the following trading day, that could trigger a Knock-Out Event. The hedging costs of these gap risks can be subject to considerable fluctuations depending on the market situation and are influenced by the volatility of the Reference Asset, the spread between the price of the Reference Asset and the Strike and the time of day, among other factors. In the case of Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates the Holder bears no direct gap risk since the loss is limited to a total loss and there is no obligation to make additional payments. However, the gap risk is usually passed on to the purchasers of the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates through the price settings in the secondary market, i.e. the Holders bear the gap risk indirectly. Since the gap risks can change significantly over time, this leads to price risks in the product and this can have a negative impact on the pricing of the product in the secondary market, even if the price of the Reference Asset moves in the expected direction. A retrospective analysis may show that the Issuer assessed the gap risk as too high or too low.

In the case of Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates, the Strike and Knock-Out Barrier are adjusted on a daily basis. Due to these adjustments, the price of the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates may decline irrespective of the performance of the Reference Asset. This means, in addition to the price of the Reference Asset the price of the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates is also dependent on other factors, for example, the interest rate level, any dividends and/or dividend taxation, if applicable. In addition, the volatility of the Reference Asset also affects the pricing of the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates.

3.2. Adjustment, replacement or determination of parameters relevant for the regular adjustment of the Strike and/or Knock-Out Barrier in the reasonable discretion of the Issuer and/or Calculation Agent

The Issuer and/or Calculation Agent is entitled to adjust, replace or determine parameters relevant for the regular adjustment of the Strike and/or the Knock-Out Barrier in its reasonable discretion and any such discretionary determination could have a negative impact on the value of and return on the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates.

Pursuant to the Conditions the Issuer and/or the Calculation Agent has the right to adjust, replace or determine certain parameters relevant for the regular adjustment of the Strike and/or the Knock-Out Barrier. In particular, the Issuer and/or Calculation Agent may be entitled to (i) adjust the Financing Spread up to the Maximum Financing Spread; (ii) replace the Reference Rate specified in the relevant Final Terms by another rate during the term of the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates; or (iii) determine the Dividend Factor relevant for the impact of the dividend consideration (see also Section B.3.1. of the Risk Factors above). The adjustments, replacements or determinations specified above will be made by the Issuer and/or the Calculation Agent in its reasonable discretion, taking into account, if applicable, prevailing market conditions (such as liquidity of global financial markets, availability and cost of capital and credit, interest rates, borrowing costs, repurchase costs, any imposition or announcement of any legislation or regulation which require higher capital ratio requirements for banks), volatility of the Reference Asset and/or taxes or charges payable by the Calculation Agent or companies affiliated with it on the cash dividends or cash distributions equivalent to dividends distributed. Any such discretionary determination by the Issuer and/or Calculation Agent could have a negative impact on the value of and return on the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates.

3.3. Risk due to the leverage effect

The Holder bears the risk of strong price fluctuations of Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates.

Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates are particularly risky financial instruments whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates. Leverage effect means that a change in the price of the Reference Asset leads to a disproportionate change in the price of the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates. The leverage effect results from the fact that the Holder has to invest a lower capital for an investment in Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates compared to a direct investment in the Reference Asset. As a rule, the following applies: If the price of the Reference Asset of a Unlimited Turbo Long Warrant and/or BEST Turbo Certificate Long and/or Unlimited X-Turbo Long Warrant and/or BEST X-Turbo Certificate Long declines, the price of the Unlimited Turbo Long Warrant and/or BEST Turbo Certificate Long and/or Unlimited X-Turbo Long Warrant and/or BEST X-Turbo Certificate Long declines disproportionately. If the price of the Reference Asset of a Unlimited Turbo Short Warrant and/or BEST Turbo Certificate Short and/or Unlimited X-Turbo Short Warrant and/or BEST X-Turbo Certificate Short rises, the price of the Unlimited Turbo Short Warrant and/or BEST Turbo Certificate Short and/or Unlimited X-Turbo Short Warrant and/or BEST X-Turbo Certificate Short falls disproportionately. The greater the leverage effect of the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates, the higher the risk of losses. Due to the leverage effect the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates involve disproportionate risks of loss compared to a direct investment in the Reference Asset (risk of total loss).

3.4. Risks relating to the term of the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates

Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates do not have a fixed term; Holders bear the risk that the term ends in the case of an ordinary or extraordinary termination or in the case of the occurrence of a Knock-Out Event.

Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates do not have a fixed term. The term ends either:

- (a) if a Knock-Out Event occurs, or
- (b) if the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates are exercised by the Holder, or
- (c) if the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates are terminated by the Issuer pursuant to the Conditions.

Therefore, Holders should not rely on being able to hold a position in the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates for an extended period of time. Holders should note that if a Knock-Out Event occurs prior to or on the Termination Date the Knock-Out Event will override the termination by the Issuer.

Holders have the right to exercise the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates on a daily

basis, subject to the non-occurrence of a Knock-Out Event. In the case of any exercise of Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates, there will be a time lag between the time a Holder gives instructions to exercise and the time the applicable Settlement Amount relating to such exercise is determined, i.e. the **Final Value of the Reference Asset used for the calculation of the Settlement Amount will, depending on the Reference Asset, be determined within a period of up to five Business Days (as specified in the applicable Final Terms) following the valid exercise of the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates.** The applicable Settlement Amount may change significantly during any such period or a Knock-Out Event may have occurred, and such movement or movements could decrease the Settlement Amount of the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates being exercised and may result in such Settlement Amount being worthless.

3.5. **Specific risks applicable to Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates**

In the case of Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates the period during which a Knock-Out Event may occur is longer; therefore, the probability that a Knock-Out Event occurs is increased.

In the case of Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates Holders should note that the Knock-Out Observation Price relevant for determining the Knock-Out Event will not only take into account prices of the Reference Asset (e.g. the DAX®), but also prices of an additional index, the x-index (e.g. the X-DAX®), as specified in the applicable Final Terms. The x-index is calculated outside of the usual trading hours of the Reference Asset (e.g. the X-DAX® is distributed from 8:00 am until DAX-opening and from 5:30 pm until 10:15 pm and the DAX® is usually calculated from 9:00 am until 5:30 pm). As a consequence the period during which a Knock-Out Event may occur is longer than in the case of Unlimited Turbo Warrants and/or BEST Turbo Certificates which are not linked to an x-index. Due to the extension of the Knock-Out Observation Period the probability that a Knock-Out Event occurs is increased. This risk is even further increased due to a higher probability of price spikes during the less liquid trading hours in case of most x-indices.

Holders of Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates should also note that the calculation of the Settlement Amount will not take into account the price of the respective x-index, but only the Final Value of the Reference Asset. This means that Holders will not benefit if the relevant price of the x-index is higher compared to the Final Value of the Reference Asset (in the case of Unlimited X-Turbo Long Warrants and/or BEST X-Turbo Certificates Long) or if the relevant price of the x-index is lower compared to the Final Value of the Reference Asset (in the case of Unlimited X-Turbo Short Warrants and/or BEST X-Turbo Certificates Short).

4. **Product No. 4. Specific risk factors applicable to Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates**

4.1. **Risk of a total loss in the case of the occurrence of a Stop-Loss Event**

In the case of Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates there is a risk that the Holder suffers significant losses. Furthermore, in the case of Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates, there is the risk that the products expire worthless during their term, if a so-called Stop-Loss Event has occurred.

The Settlement Amount of Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates is calculated – in the case of Mini Future Long Warrants and/or Turbo Certificates Long and/or X-Mini Future Long Warrants and/or X-Turbo Certificates Long – by the difference between the price of the Reference Asset on the Valuation Date (the "**Final Level**") and the current Strike (taking into account the Ratio) and/or – in the case of Mini Future Short Warrants and/or Turbo Certificates Short and/or X-

Mini Future Short Warrants and/or X-Turbo Certificates Short – by the difference between the current Strike and the Final Level (taking into account the Ratio). In the case of Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates there is a risk that the Holder suffers significant losses up to a total loss of the invested capital. A total loss occurs if the Final Level is equal to or below the current Strike (in the case of Mini Future Long Warrants and/or Turbo Certificates Long and/or X-Mini Future Long Warrants and/or X-Turbo Certificates Long) and/or equal to or above the current Strike (in the case of Mini Future Short Warrants and/or Turbo Certificates Short and/or X-Mini Future Short Warrants and/or X-Turbo Certificates Short).

Furthermore, Holders in Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates bear the risk that the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates expire worthless during their term, if a so-called Stop-Loss Event has occurred. A **"Stop-Loss Event"** occurs, if a price of the Reference Asset defined in the applicable Final Terms (the **"Stop-Loss Observation Price"**) reaches or falls below (in the case of Mini Future Long Warrants and/or Turbo Certificates Long and/or X-Mini Future Long Warrants and/or X-Turbo Certificates Long) and/or reaches or exceeds (in the case of Mini Future Short Warrants and/or Turbo Certificates Short and/or X-Mini Future Short Warrants and/or X-Turbo Certificates Short) a predefined price or value threshold (the so-called **"Stop-Loss Barrier"**). The Holder must always be aware that even a single reaching or falling below (in the case of Mini Future Long Warrants and/or Turbo Certificates Long and/or X-Mini Future Long Warrants and/or X-Turbo Certificates Long) or reaching or exceeding (in the case of Mini Future Short Warrants and/or Turbo Certificates Short and/or X-Mini Future Short Warrants and/or X-Turbo Certificates Short) of the current Stop-Loss Barrier by the Stop-Loss Observation Price leads to the occurrence of a Stop-Loss Event. In this context, it should be noted that the determination of the occurrence of a Stop-Loss Event may be based on prices of the Reference Asset which are determined during regular trading sessions other than the trading sessions of Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates, so that there is a risk for the Holder that he is not aware or not aware in time of the threat of a Stop-Loss Event (in relation to particularities for X-Mini Future Warrants and/or X-Turbo Certificates see below under "Specific risks applicable to X-Mini Future Warrants and/or X-Turbo Certificates").

If a Stop-Loss Event occurs, the term of the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates ends automatically, the Security Right or the right to payment of a Settlement Amount expires automatically and the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates expire worthless, subject to a potential payout of the residual price of the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates (the so-called **"Stop-Loss Settlement Amount"**). Holders should note in this context that the value of the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates is reduced disproportionately compared to warrants, if the price of the Reference Asset approaches a Stop-Loss Barrier.

An important determinant for the probability of the occurrence of a Stop-Loss Event is the volatility of the Reference Asset. The term **"Volatility"** means the fluctuation margin or price movements of the Reference Asset. The higher the Volatility of the Reference Asset, the higher the risk of breaching the Stop-Loss Barrier.

It must be noted that in the case of Mini Future Long Warrants and/or Turbo Certificates Long and/or X-Mini Future Long Warrants and/or X-Turbo Certificates Long, the probability that a Stop-Loss Event occurs is increased due to the regular adjustment of the current Stop-Loss Barrier while the price of the Reference Asset remains constant. In the case of Mini Future Short Warrants and/or Turbo Certificates Short and/or X-Mini Future Short Warrants and/or X-Turbo Certificates Short, the probability that a Stop-Loss Event occurs is increased due to the regular adjustment of the current Stop-Loss Barrier, while the price of the Reference Asset remains constant, if the Reference Rate falls below the Financing Spread described in more detail in the Conditions. The longer a Holder holds the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates in these cases, the higher is the risk of loss of the invested capital. In the case of Mini Future Warrants and/or

Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates linked to Foreign Exchange Rates, the risk that a Stop-Loss Event occurs increases, if the difference between the Reference Rate of the Reference Currency and the Reference Rate for the Base Currency is increased (Mini Future Long Warrants and/or Turbo Certificates Long and/or X-Mini Future Long Warrants and/or X-Turbo Certificates Long) or decreased (Mini Future Short Warrants and/or Turbo Certificates Short and/or X-Mini Future Short Warrants and/or X-Turbo Certificates Short). In the case of Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates linked to Futures Contracts, the particular risk exists that a Stop-Loss Event may occur solely due to rolling of the relevant Futures Contract. The regular adjustment of the current Stop-Loss Barrier will be made on the basis of the respective current Strike. In the case of Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates linked to Shares and/or Indices it should be noted that in the course of the regular adjustment of the current Strike any dividends or cash amounts equivalent to dividends will be taken into account (also considering the relevant Dividend Factor). In the case of Mini Future Long Warrants and/or Turbo Certificates Long and/or X-Mini Future Long Warrants and/or X-Turbo Certificates Long linked to a total return index, the current Strike and, as a consequence, the current Stop-Loss Barrier will increase. Accordingly, the probability that a Stop-Loss Event occurs will increase. In the case of Mini Future Long Warrants and/or Turbo Certificates Long and/or X-Mini Future Long Warrants and/or X-Turbo Certificates Long linked to a price return index, the current Strike will fall by an amount that is less than the gross dividend amount being paid. Accordingly, the probability that a Stop-Loss Event occurs will increase. The effect will be greater, the higher the dividends and/or the dividend taxation. In the case of Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates linked to Futures Contracts, the particular risk exists that a Stop-Loss Event may occur solely due to rolling of the relevant Futures Contract.

The Stop-Loss Barrier depends on the Stop-Loss Buffer. The Stop-Loss Buffer in turn corresponds to a percentage rate determined by the Issuer when issuing the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates, the amount of which may be adjusted during the term of the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates on certain Stop-Loss Adjustment Dates up to a Maximum Stop-Loss Buffer that was determined by the Issuer when the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates were issued. An adjustment of the Stop-Loss Buffer may occur in particular if the volatility of the Reference Asset to which the Mini Future Warrant and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates is linked changes significantly. Holders should note that the probability that a Stop-Loss Event occurs increases if the Stop-Loss Buffer is increased, since the distance between the Stop-Loss Barrier and the price of the Reference Asset is reduced in this case. It cannot be ruled out that a Stop-Loss Event may be triggered on a Stop-Loss Adjustment Date merely due to the adjustment of the Stop-Loss Buffer.

Holders cannot rely on being able to exercise the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates at all times prior to the occurrence of a Stop-Loss Event. Even if all other exercise preconditions set forth in the Conditions are fulfilled, an exercise is impossible on the day on which a Stop-Loss Event occurs. All submitted Exercise Notices that have not been executed become automatically void on the occurrence of the Stop-Loss Event.

It should also be noted that during the occurrence of a Stop-Loss Event and the phase during which the Stop-Loss Reference Price is determined, no continuous bid and ask prices may be quoted for the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates on the secondary market by JPMorgan Chase. Furthermore, no continuous bid and ask prices may be quoted for the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates on the secondary market by JPMorgan Chase outside of the trading hours of the Reference Asset, if JPMorgan Chase expects a Stop-Loss Event to occur due to different price indicators than the official relevant price of the Reference Asset. Holders should consider in this context that JPMorgan Chase does not commit or is not under any obligation legal or otherwise towards the Holders to quote bid and ask prices for the Mini Future Warrants and/or Turbo Certificates and/or X-

Mini Future Warrants and/or X-Turbo Certificates. Holders should therefore not rely on being able to purchase or sell the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates at any time.

It must also be considered that Holders may suffer a total loss of the invested capital if the Stop-Loss Reference Price falls to or below the Current Strike (in the case of Mini Future Long Warrants and/or Turbo Certificates Long and/or X-Mini Future Long Warrants and/or X-Turbo Certificates Long) or increases to or above the Current Strike (in the case of Mini Future Short Warrants and/or Turbo Certificates Short and/or X-Mini Future Short Warrants and/or X-Turbo Certificates Short). Such a risk exists in particular in situations where the price of the Reference Asset falls significantly (in the case of Mini Future Long Warrants and/or Turbo Certificates Long and/or X-Mini Future Long Warrants and/or X-Turbo Certificates Long) or rises significantly (in the case of Mini Future Short Warrants and/or Turbo Certificates Short and/or X-Mini Future Short Warrants and/or X-Turbo Certificates Short) between the close of trading in the Reference Asset on a trading day and the commencement of trading on the next following trading day.

The price of Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates usually also reflects the so-called gap risk. This is the risk of price jumps in the Reference Asset, for example between the close of trading on the previous day and the start of trading on the following trading day, that could trigger a Stop-Loss Event. The hedging costs of these gap risks can be subject to considerable fluctuations depending on the market situation and are influenced by the volatility of the Reference Asset, the spread between the price of the Reference Asset and the Strike and the time of day, among other factors. In the case of Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates the Holder bears no direct gap risk since the loss is limited to a total loss and there is no obligation to make additional payments. However, the gap risk is usually passed on to the purchasers of the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates through the price settings in the secondary market, i.e. the Holders bear the gap risk indirectly. Since the gap risks can change significantly over time, this leads to price risks in the product and this can have a negative impact on the pricing of the product in the secondary market, even if the price of the Reference Asset moves in the expected direction. A retrospective analysis may show that the Issuer assessed the gap risk as too high or too low.

The Strike and the Stop-Loss Barrier are adjusted in the case of Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates on a regular basis in accordance with specific rules explained in the Conditions. Due to the adjustment of the Strike and the Stop-Loss Barrier, the price of the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates may decrease irrespective of the development of the price of the Reference Asset. In addition, investors should note, that the price of Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates depends, for example, also on the interest rate level and any dividends and/or dividend taxation, if applicable.

4.2. Adjustment, replacement or determination of certain parameters relevant for the regular adjustment of the Strike and/or Stop-Loss Barrier in the reasonable discretion of the Issuer and/or Calculation Agent

The Issuer and/or Calculation Agent is entitled to adjust, replace or determine parameters relevant for the regular adjustment of the Strike and/or the Stop-Loss Barrier in its reasonable discretion and any such discretionary determination could have a negative impact on the value of and return on the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates.

Pursuant to the Conditions the Issuer and/or the Calculation Agent has the right to adjust, replace or determine certain parameters relevant for the regular adjustment of the Strike and/or the Stop-Loss Barrier. In particular, the Issuer and/or Calculation Agent may be entitled to (i) adjust the Stop-Loss Buffer (see also Section B.4.1. of the Risk Factors above) and/or Financing Spread up to the Maximum Stop-Loss Buffer and/or the Maximum Financing Spread; (ii) replace the Reference Rate specified in the relevant Final Terms by another rate

during the term of the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates; or (iii) determine the Dividend Factor relevant for the impact of the dividend consideration (see also Section B.4.1. of the Risk Factors above). The adjustments, replacements or determinations specified above will be made by the Issuer and/or the Calculation Agent in its reasonable discretion, taking into account, if applicable, prevailing market conditions (such as liquidity of global financial markets, availability and cost of capital and credit, interest rates, borrowing costs, repurchase costs, any imposition or announcement of any legislation or regulation which require higher capital ratio requirements for banks), volatility of the Reference Asset and/or taxes or charges payable by the Calculation Agent or companies affiliated with it on the cash dividends or cash distributions equivalent to dividends distributed. Any such discretionary determination by the Issuer and/or Calculation Agent could have a negative impact on the value of and return on the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates.

4.3. Risk due to the leverage effect

The Holder bears the risk of strong price fluctuations of Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates.

Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates are particularly risky financial instruments whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates. Leverage effect means that a change in the price of the Reference Asset leads to a disproportionate change in the price of the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates. The leverage effect results from the fact that the Holder has to invest a lower capital for an investment in Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates compared to a direct investment in the Reference Asset. As a rule, the following applies: If the price of the Reference Asset of a Mini Future Long Warrant and/or Turbo Certificate Long and/or X-Mini Future Long Warrant and/or X-Turbo Certificate Long declines, the price of the Mini Future Long Warrant and/or Turbo Certificate Long and/or X-Mini Future Long Warrant and/or X-Turbo Certificate Long declines disproportionately. If the price of the Reference Asset of a Mini Future Short Warrant and/or Turbo Certificate Short and/or X-Mini Future Short Warrant and/or X-Turbo Certificate Short rises, the price of the Mini Future Short Warrant and/or Turbo Certificate Short and/or X-Mini Future Short Warrant and/or X-Turbo Certificate Short falls disproportionately. The greater the leverage effect of the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates, the higher the risk of losses. Due to the leverage effect the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates involve disproportionate risks of loss compared to a direct investment in the Reference Asset (risk of total loss).

4.4. Risks relating to the term of the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates

Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates do not have a fixed term; Holders bear the risk that the term ends in the case of an ordinary or extraordinary termination or in the case of the occurrence of a Stop-Loss Event.

Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates do not have a fixed term. The term ends either:

- (a) if a Stop-Loss Event occurs, or
- (b) if the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates are exercised by the Holder, or

- (c) if the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates are terminated by the Issuer pursuant to the Conditions.

Therefore, Holders should not rely on being able to hold a position in the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates for an extended period of time. Holders should note that if a Stop-Loss Event occurs prior to or on the Termination Date the Stop-Loss Event will override the termination by the Issuer.

Holders have the right to exercise the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates on a daily basis, subject to the non-occurrence of a Stop-Loss Event. In the case of any exercise of Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates, there will be a time lag between the time a Holder gives instructions to exercise and the time the applicable Settlement Amount relating to such exercise is determined, i.e. the **Final Value of the Reference Asset used for the calculation of the Settlement Amount will, depending on the Reference Asset, be determined within a period of up to five Business Days (as specified in the applicable Final Terms) following the valid exercise of the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates.** The applicable Settlement Amount may change significantly during any such period, or a Stop-Loss Event may have occurred, and such movement or movements could decrease the Settlement Amount of the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates being exercised and may result in such Settlement Amount being zero (0).

4.5. Specific risks applicable to X-Mini Future Warrants and/or X-Turbo Certificates

In the case of X-Mini Future Warrants and/or X-Turbo Certificates the period during which a Stop-Loss Event may occur is longer; therefore, the probability that a Stop-Loss Event occurs is increased.

In the case of X-Mini Future Warrants and/or X-Turbo Certificates Holders should note that the Stop-Loss Observation Price relevant for determining the Stop-Loss Event will not only take into account prices of the Reference Asset (e.g. the DAX®), but also prices of an additional index, the x-index (e.g. the X-DAX®), as specified in the applicable Final Terms. The x-index is calculated outside of the usual trading hours of the Reference Asset (e.g. the X-DAX® is distributed from 8:00 am until DAX-opening and from 5:30 pm until 10:15 pm and the DAX® is usually calculated from 9:00 am until 5:30 pm). As a consequence the period during which a Stop-Loss Event may occur is longer than in the case of Mini Future Warrants and/or Turbo Certificates which are not linked to an x-index. Due to the extension of the Stop-Loss Observation Period the probability that a Stop-Loss Event occurs is increased. This risk is even further increased due to a higher probability of price spikes during the less liquid trading hours in case of most x-indices.

Holders of X-Mini Future Warrants and/or X-Turbo Certificates should also note that the calculation of the Settlement Amount will not take into account the price of the respective x-index, but only the Final Value of the Reference Asset. This means that Holders will not benefit if the relevant price of the x-index is higher compared to the Final Value of the Reference Asset (in the case of X-Mini Future Long Warrants and/or X-Turbo Certificates Long) or if the relevant price of the x-index is lower compared to the Final Value of the Reference Asset (in the case of X-Mini Future Short Warrants and/or X-Turbo Certificates Short).

5. Product No. 5. Specific risk factors applicable to Factor Warrants

5.1. Risk in the case of Factor Warrants, that are not linked to a Factor Index as Reference Asset

5.1.1. Risk of total loss

In the case of the occurrence of an Adjustment Event Termination the Factor Warrants will be automatically terminated and the Holder will suffer a total loss of the capital invested. Factor

Warrants are only suitable for very experienced investors with a very short investment horizon who consciously accept the risks associated with Factor Warrants.

In the case of Factor Warrants, the amount of the Settlement Amount is dependent on the performance of the relevant Reference Asset.

The performance of the Reference Asset may be subject to fluctuations over time. Depending on the structure of the Factor Warrants, an increase in the Reference Asset (in the case of Factor Warrants Short) or a decrease in the Reference Asset (in the case of Factor Warrants Long) has unfavourable consequences for the Holders.

In the case of an Adjustment Event Termination it should be noted, that if the Value of the Reference Asset is equal to or below (in the case of Factor Warrants Long) or equal to or above (in the case of Factor Warrants Short) the Current Strike last applicable before the occurrence of the relevant Adjustment Event the Factor Warrants will be automatically terminated and the Holder will receive the Adjustment Event Termination Amount that is zero or close to zero. In this case the investor will suffer a total loss of the capital invested.

Factor Warrants are only suitable for very experienced investors with a very short investment horizon who consciously accept the risks associated with Factor Warrants. The recommended holding period is usually one day.

The price of Factor Warrants usually also reflects the so-called gap risk. This is the risk of price jumps in the Reference Asset, for example between the close of trading on the previous day and the start of trading on the following trading day, that could trigger an Adjustment Event. The hedging costs of these gap risks can be subject to considerable fluctuations depending on the market situation and are influenced by the volatility of the Reference Asset, the spread between the price of the Reference Asset and the Strike and the time of day, among other factors. In the case of Factor Warrants the Holder bears no direct gap risk since the loss is limited to a total loss and there is no obligation to make additional payments. However, the gap risk is usually passed on to the purchasers of the Factor Warrants through the price settings in the secondary market, i.e. the Holders bear the gap risk indirectly. Since the gap risks can change significantly over time, this leads to price risks in the product and this can have a negative impact on the pricing of the product in the secondary market, even if the price of the Reference Asset moves in the expected direction. A retrospective analysis may show that the Issuer assessed the gap risk as too high or too low.

5.1.2. Adjustment, replacement or determination of certain parameters relevant for the regular adjustment of the Ratio, Strike and/or Adjustment Barrier in the reasonable discretion of the Issuer and/or Calculation Agent

The Issuer and/or Calculation Agent is entitled to adjust, replace or determine parameters relevant for the regular adjustment of the Ratio, Strike and/or the Adjustment Barrier in its reasonable discretion and any such discretionary determination could have a negative impact on the value of and return on the Factor Warrants.

Pursuant to the Conditions the Issuer and/or the Calculation Agent has the right to adjust, replace or determine certain parameters relevant for the regular adjustment of the Ratio, Strike and/or the Adjustment Barrier. In particular, the Issuer and/or Calculation Agent may be entitled to (i) adjust the Financing Spread up to the Maximum Financing Spread; (ii) adjust the Factor Rate up to the Maximum Factor Rate; (iii) replace the Reference Rate specified in the relevant Final Terms by another rate during the term of the Factor Warrants; or (iv) determine the Dividend Factor relevant for the impact of the dividend consideration. The adjustments, replacements or determinations specified above will be made by the Issuer and/or the Calculation Agent in its reasonable discretion, taking into account, if applicable, prevailing market conditions (such as liquidity of global financial markets, availability and cost of capital and credit, interest rates, borrowing costs, repurchase costs, any imposition or announcement of any legislation or regulation which require higher capital ratio requirements for banks), volatility of the Reference Asset and/or taxes or charges payable by the Calculation Agent or companies affiliated with it on the cash dividends or cash distributions equivalent to dividends

distributed. **Any such discretionary determination by the Issuer and/or Calculation Agent could have a negative impact on the value of and return on the Factor Warrants.**

5.1.3. Risk due to the leverage effect

The Holder bears the risk of strong price fluctuations of Factor Warrants whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Factor Warrants.

Factor Warrants are particularly risky financial instruments whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Factor Warrants. Leverage effect means that a change in the price of the Reference Asset leads to a disproportionate change in the price of the Factor Warrants. The leverage effect results from the fact that the Holder has to invest a lower capital for an investment in Factor Warrants compared to a direct investment in the Reference Asset. As a rule, the following applies: If the price of the Reference Asset of a Factor Warrant Long declines, the price of the Factor Warrant Long declines disproportionately. If the price of the Reference Asset of a Factor Warrant Short rises, the price of the Factor Warrant Short falls disproportionately. The greater the leverage effect of the Factor Warrants, the higher the risk of losses. Due to the leverage effect the Factor Warrants involve disproportionate risks of loss compared to a direct investment in the Reference Asset (risk of total loss).

5.1.4. Risk factors in connection with the regular adjustment of the Strike and the Ratio

The Strike and the Ratio are adjusted on a regular basis whereby such adjustment may have a negative impact on the value of the Factor Warrants.

(a) Risk factors due to leverage effect

Factor Warrants Long track a leveraged investment in the Reference Asset. The leverage effect occurs with either positive or negative movements in the price of the Reference Asset, having a disproportionate effect on the value of the Factor Warrants Long. This means that a negative movement in the price of the Reference Asset (which is unfavourable for the investor) will result in a disproportionately negative change in the value of the Factor Warrants Long. **The investor must consider that even sideways movements (the price of the Reference Asset rises and falls alternately) in the Reference Asset principally results in price losses:** In the course of the daily calculation of the Factor Warrants Long, the effect of the leverage effect is that the daily movement in the price of the Reference Asset is magnified by the degree of leverage. The Factor Warrants Long will have lost value if the price of the Reference Asset falls on one day and returns to its initial value on the next day – and the loss will be greater the higher the leverage is. The Factor Warrants Long therefore "realise" the daily (leveraged) gains and losses as a result of the daily determination of a new closing price, which then serves as the basis for the subsequent calculation of the Factor Warrants Long. This effect of the leverage also means that an investor in a Factor Warrant Long can suffer a significant fall in value even though the price of the Reference Asset has not changed materially. **The higher the leverage, the more volatile the sideways movement and the longer the holding period with regard to the Factor Warrants the greater the loss.**

Factor Warrants Short inversely track a leveraged investment in the Reference Asset. The leverage effect occurs with either positive or negative movements in the price of the Reference Asset, having a disproportionate effect on the value of the Factor Warrants Short. This means that a positive movement in the price of the Reference Asset (which is unfavourable for the investor) will result in a disproportionately negative change in the value of the Factor Warrants Short. **The investor must consider that even sideways movements (the price of the Reference Asset rises and falls alternately) in the Reference Asset principally results in price losses:** In the course of the daily calculation of the Factor Warrants Short, the effect of the leverage is that the daily movement in the price of the Reference Asset is magnified by the degree of leverage. The Factor Warrants Short will have lost value if the price

of the Reference Asset rises on one day and returns to its initial value on the next day – and the loss will be greater the higher the leverage is. The Factor Warrants Short therefore "realise" the daily (leveraged) gains and losses as a result of the daily determination of a new closing price, which then serves as the basis for the subsequent calculation of the Factor Warrants Short. This effect of the leverage also means that the investor in a Factor Warrant Short can suffer a significant fall in value even though the price of the Reference Asset has not changed materially. **The higher the leverage, the more volatile the sideways movement and the longer the holding period with regard to the Factor Warrants the greater the loss.**

(b) ***Risk factors due to the Adjustment Rate***

In the case of Factor Warrants Long, the Adjustment Rate tracks the capital costs that would be incurred to finance the corresponding investment in the Reference Asset. Therefore, the Adjustment Rate reduces the value of the Factor Warrants.

In the case of Factor Warrants Short, the Adjustment Rate emulates the income and expenses that would arise from acquiring the Reference Asset, selling it and investing the proceeds at the risk-free rate. If the acquisition costs exceed the interest income based on the relevant Reference Rate on a particular day, the value of the Factor Warrants is reduced on such day.

In connection with the regular adjustment of the Strike the following risks should be taken into account:

- ***Risk factors due to consideration of a Factor Rate***

The investor must consider that in relation to the Factor Warrants an ongoing fee for the hedging of the Factor Warrants is deducted in connection with the calculation of the Factor Warrants. The Issuer and/or Calculation Agent has the right to adjust the Factor Rate during the term of the Factor Warrants (see also Section B.5.1.2 of the Risk Factors above). The deduction of the Factor Rate generally results in a reduction in the value of the Factor Warrants.

- ***Risk factors due to consideration of the Financing Spread***

The investor must consider that in connection with the adjustment of the Strike a Financing Spread is taken into account that is determined by the Issuer. The Issuer and/or the Calculation Agent has the right to adjust the Financing Spread during the term of the Factor Warrants (see also Section B.5.1.2 of the Risk Factors above). The consideration of the Financing Spread generally results in a reduction in the value of the Factor Warrants.

- ***Specific risk factors for Factor Warrants Long***

In the case of Factor Warrants Long (which replicates a long strategy), an investor would have to borrow money. The (theoretical) interest payable is included in the calculation of Factor Warrants Long. If the interest rate for overnight money rises sharply and/or the credit worthiness (or rating) of the respective investor deteriorates and the financing spread rises as a result, this may have the effect of substantially reducing the value of the Factor Warrants Long.

- ***Specific risk factors for Factor Warrants Short on shares***

In the case of Factor Warrants Short (which replicates a short strategy), an investor would have to borrow shares in order to sell them short. A fee would need to be paid for such borrowing of shares, determined by supply and demand for the share. This (theoretical) fee is included in the calculation of Factor Warrants Short. In the event of a shortage of shares available for borrowing (e.g. declining liquidity as the result of a takeover offer or in anticipation of one), there may be a jump in this fee which may then result in a reduction in the value of the Factor Warrants Short.

- ***Change in the tax treatment of dividends***

A change in the tax treatment of dividends (from the point of view of the Issuer and/or Calculation Agent) may mean that the Issuer and/or Calculation Agent will no longer include dividends distributed on shares in the calculation of the Factor Warrants in the same amounts as before. This may have the effect of reducing the value of the Factor Warrants.

(c) ***Risk factors due to consideration of the Roll Factor in connection with the adjustment of the Ratio***

The Ratio of the Factor Warrants is adjusted on a regular basis. Holders must consider that in relation to Factor Warrants that provide for a Roll Spread in the applicable Final Terms an ongoing Roll Factor may be deducted in connection with the adjustment of the Ratio. The deduction of the Roll Factor generally results in a reduction in the value of the Factor Warrants. In this context it should be noted that the greater the difference between the relevant prices of the Reference Asset (and/or the relevant Ratios) between two consecutive adjustment events, the greater the effect of the deduction of the Roll Factor.

5.1.5. Risk Factors due to the intraday adjustment

If the relevant Adjustment Barrier is broken, Factor Warrants provide for an intraday adjustment that results in an immediate realization of the losses accrued.

Factor Warrants provide for an intraday adjustment of the Strike, the Ratio and the Adjustment Barrier if the Reference Asset reaches or exceeds the Current Adjustment Barrier (in the case of Factor Warrants Short) or reaches or falls below the Current Adjustment Barrier (in the case of Factor Warrants Long). This mechanism can only mitigate further losses in the Factor Warrants, but the losses may nevertheless be substantial. Therefore, the Adjustment Barrier should not be regarded as a "safety buffer" and the amount of losses also depends on the level of the Adjustment Barrier. The intraday adjustment results in an immediate realization of the losses accrued, since any recovery in value can only start from the relevant lower price of the Reference Asset (in the case of Factor Warrants Long) and/or the relevant higher price of the Reference Asset (in the case of Factor Warrants Short).

An intraday adjustment can also result in losses in the Factor Warrants in the event of significant intraday fluctuations in the Reference Asset. This will be the case, for example, even if the Reference Asset returns to its initial level by the close of trading.

With respect to a potential extraordinary termination of the Factor Warrants in the case of the occurrence of an Adjustment Event see Section E.1 of the Risk Factors below.

5.1.6. Risk factors relating to the unlimited term of the Factor Warrants, the Issuer's extraordinary and ordinary termination right and particularities in relation to the exercise of the Factor Warrants by the Holder

Factor Warrants do not have a fixed term; Holders bear the risk that the term ends in the case of an ordinary or extraordinary termination or in the case of an Adjustment Event Termination.

Factor Warrants do not have a fixed term. The term ends either:

- (a) if the Factor Warrants are exercised by the Holder, or
- (b) if the Factor Warrants are ordinarily or extraordinarily terminated by the Issuer pursuant to the Conditions.

Furthermore, the Factor Warrants will be automatically terminated upon the occurrence of Adjustment Event Termination. An Adjustment Event Termination will take place, if the Value of the Reference Asset that is determined after the occurrence of an Adjustment Event is equal to or below (in the case of Factor Warrants Long) and/or equal to or above (in the case

of Factor Warrants Short) the current Strike last applicable before the occurrence of the relevant Adjustment Event (see also Section B.5.1.1. of the Risk Factors above). In the case of an Adjustment Event Termination the Holder will receive the Adjustment Event Termination Amount on the fifth business day after the occurrence of the Adjustment Event Termination.

Therefore, Holders should not rely on being able to hold a position in the Factor Warrants for an extended period of time.

Subject to the occurrence of an Adjustment Event Termination, Holders have the right to exercise the Factor Warrants on a daily basis. In the case of any exercise of Factor Warrants, there will be a time lag between the time a Holder gives instructions to exercise and the time the applicable Settlement Amount relating to such exercise is determined, i.e. the **Final Value of the Reference Asset used for the calculation of the Settlement Amount will, depending on the Reference Asset, be determined within a period of up to five Business Days (as specified in the applicable Final Terms) following the valid exercise of the Factor Warrants.** The applicable Final Value may change significantly during any such period, and such movement or movements could decrease the Settlement Amount of the Factor Warrants being exercised. **If a Holder exercises the Factor Warrants and an Adjustment Event Termination occurs in the period between the exercise of the Factor Warrants and the determination of the Final Value, the Exercise Notice of the Holder becomes void and the Holder only receives the Adjustment Event Termination Amount.**

5.2. Risk in the case of Factor Warrants that are linked to a Factor Index as Reference Asset

5.2.1. Risk of total loss

The Holder will suffer a total loss if the relevant price of the Reference Asset for the calculation of the Settlement Amount is worthless. Factor Warrants are only suitable for very experienced investors with a very short investment horizon who consciously accept the risks associated with Factor Warrants.

In the case of Factor Warrants, the amount of the Settlement Amount is dependent on the performance of the relevant Reference Asset. The performance of the Reference Asset is primarily dependent on the performance of the price of the relevant underlying (e.g. a share, a security representing a share, other dividend bearing securities).

The performance of the Reference Asset may be subject to fluctuations over time and a decrease in the Reference Asset is unfavourable for the Holder. Depending on the structure of the Reference Asset, an increase in the underlying (in the case of Short Reference Assets) or a decrease in the underlying (in the case of Long Reference Assets) has unfavourable consequences for the Holders. A total loss will occur if the relevant price of the Reference Asset for the calculation of the Settlement Amount is worthless.

Factor Warrants are only suitable for very experienced investors with a very short investment horizon who consciously accept the risks associated with Factor Warrants. The recommended holding period is usually one day.

5.2.2. Risk factors related to Securities with Management Fee or Quanto Fee

The consideration of a Management Fee or Quanto Fee not only reduces the Settlement Amount payable by the Issuer, but also reduces the value of the Securities on the secondary market.

To the extent provided in the applicable Final Terms, a certain Management Fee or Quanto Fee is deducted from the Settlement Amount payable.

The Management Fee compensates the Issuer or entities associated with the Issuer for costs incurred by it (in the absence of foreign exchange hedging) in entering into transactions related to the Reference Asset on the capital markets, which serve to hedge the fulfilment risks associated with the issuance of the Securities ("**Hedging Transactions**"). The Quanto Fee is charged in order to compensate the Issuer for hedging costs in hedging foreign exchange risk.

It should be noted that a Management Fee or Quanto Fee not only reduces the Settlement Amount payable by the Issuer, whereby the Final Value is multiplied by a Management Factor or Fee Factor (consisting of the Management Fee and Quanto Fee) calculated pursuant to the Issue Specific Conditions, but also reduces the value of the Securities on the secondary market during their term. Such a Management Fee or Quanto Fee is incorporated in the calculation of the bid and ask prices for Securities on the secondary market according to the portion of the term of the Securities that has already expired.

The Issuer is entitled to adjust the level of the Management Fee during the term of the Securities. In the case of a Management Fee greater than zero (0), the effect of the Management Fee will be greater, the longer the holding period in which it applies to the Securities.

Exchange rate hedging costs may vary considerably according to market conditions and may have either a significant negative or a significant positive value. This will be reflected in the current Quanto Fee. Should the exchange rate hedging costs be significantly positive, the Quanto Fee will increase and lead to a lower Settlement Amount. Should the exchange rate hedging costs be significantly negative, the Quanto Fee will be smaller and the Settlement Amount will be higher. As the term increases, it is relatively unlikely that a negative Quanto Fee will offset the Management Fee and that the Fee Factor will have a positive effect for the Holder.

The level of the Quanto Fee is set by the Issuer on the basis of the current market parameters. Five factors in particular are influential in determining these costs: the interest rate of the Reference Currency, the interest rate of the Specified Currency that is being hedged, the volatility of the Reference Asset, the volatility of the exchange rate between the Reference Currency and the Specified Currency, and the correlation between the price of the Reference Asset and the performance of the exchange rate.

The costs may be increased as a result of an increasing interest rate in the Reference Currency, a falling interest rate in the Specified Currency, as well as increasing volatilities and an increasing correlation. This may lead to a higher Quanto Fee and consequently to a lower investment yield, all other conditions remaining the same.

5.2.3. Risk factors in connection with the concept of Factor Indices

The Factor Index is adjusted on a regular basis pursuant to the methodology of the Factor Index whereby such adjustment may have a negative impact on the value of the Factor Warrants.

The Factor Index tracks the leveraged investment in the relevant underlying. Accordingly, the value of the Factor Index depends on the development of the respective underlying (see specific risks relating to asset classes in Section C. of the Risk Factors below).

The Final Value of the Factor Index, which is relevant for the determination of the Settlement Amount, is calculated on the basis of (a) a leverage component and (b) a financing component:

(a) **Risk factors due to leverage component**

In the case of Long Factor Indices, the leverage component tracks an investment in the underlying, whereby movements in the price of the underlying are multiplied by the leverage (*Factor*). This leverage effect occurs with either positive or negative movements in the price of the Underlying, having a disproportionate effect on the value of the Factor Index. This means that a negative movement in the price of the underlying (which is unfavourable for the investor) will result in a disproportionately negative change in the value of the Security. **The investor must consider that even sideways movements (the price rises and falls alternately) in the underlying principally results in price losses:** In the course of the daily calculation of the Factor Index, the effect of the leverage component is that the daily movement in the price of the underlying is magnified by the degree of leverage. The reference point for the calculation of the Factor Index is based on the closing price of the Factor Index on the preceding day, in accordance with the index methodology. A Long Factor Index will

have lost value if the price of the underlying falls on one day and returns to its initial value on the next day – and the loss will be greater the higher the leverage is. A Factor Index therefore "realises" the daily (leveraged) gains and losses as a result of the daily determination of a new closing price of the Factor Index, which then serves as the basis for the subsequent calculation of the Factor Index. This effect of the leverage also means that a Factor Index can suffer a significant fall in value even though the price of the underlying has not changed materially. **The higher the leverage, the more volatile the sideways movement and the longer the holding period with regard to the Factor Warrants the greater the loss.**

In the case of Short Factor Indices, the leverage component inversely tracks an investment in the underlying, whereby movements in the price of the underlying are multiplied by the leverage (*Factor*). This leverage effect occurs with either positive or negative movements in the price of the underlying, having a disproportionate effect on the value of the Factor Index. This means that a positive movement in the price of the underlying (which is unfavourable for the investor) will result in a disproportionately negative change in the value of the Security. **The investor must consider that even sideways movements (the price rises and falls alternately) in the underlying principally results in price losses:** In the course of the daily calculation of the Factor Index, the effect of the leverage component is that the daily movement in the price of the underlying is magnified by the degree of leverage. The reference point for the calculation of the Factor Index is the closing price of the Factor Index on the preceding day, in accordance with the index methodology. A Short Factor Index will have lost value if the price of the underlying rises on one day and returns to its initial value on the next day – and the loss will be greater the higher the leverage is. A Factor Index therefore "realises" the daily (leveraged) gains and losses as a result of the daily determination of a new closing price of the Factor Index, which then serves as the basis for the subsequent calculation of the Factor Index. This effect of the leverage also means that a Factor Index can suffer a significant fall in value even though the price of the underlying has not changed materially. **The higher the leverage, the more volatile the sideways movement and the longer the holding period with regard to the Factor Warrants the greater the loss.**

(b) ***Risk factors due to financing component***

In the case of Long Factor Indices, the financing component tracks the capital costs that would be incurred to finance the corresponding investment in the underlying. Additionally, a fee (taking into account the Leverage) for the calculation and administration of the Factor Index may be added (*Index Fee*). Therefore, the financing component reduces the value of the Factor Index.

In the case of Short Factor Indices, the financing component emulates the income and expenses that would arise from acquiring the underlying, selling it and investing the proceeds at the risk-free rate. Additionally, a fee (taking into account the leverage) for the calculation and administration of the Factor Index may be added (*Index Fee* which reduces the value of the index). If the acquisition costs and the Index Fee exceed the interest income based on the relevant reference rate on a particular day, the value of the Factor Index is reduced on such day.

Holders should note that the Index Sponsor may determine some parameters for the purpose of calculating the financing component in its reasonable discretion. The exercise of such discretion may differ from the estimation of other market participants.

In connection with the financing component the following risks should be taken into account:

- ***Risk factors due to consideration of index fee***

The investor must consider that, for the purposes of calculating the Index, an ongoing fee for the administration and calculation of the Factor Index may be deducted in connection with the calculation of the closing price of the Factor Index. The deduction of the index fee generally results in a reduction in the value of the closing price of the Factor Index and therefore also of the Securities.

- ***Specific risk factors for Long Factor Indices***

In the case of a Long Factor Index (which replicates a long strategy), an investor would have to borrow money. The (theoretical) interest payable is included in the calculation of the Factor Index. If the interest rate for overnight money rises sharply and/or the credit worthiness (or rating) of the respective investor deteriorates and the financing spread rises as a result, this may have the effect of substantially reducing the value of the Factor Index.

- ***Specific risk factors for Short Factor Indices on shares***

In the case of a Short Factor Index (which replicates a short strategy), an investor would have to borrow shares in order to sell them short. A fee would need to be paid for such borrowing of shares, determined by supply and demand for the share. This (theoretical) fee is included in the calculation of the Factor Index. In the event of a shortage of shares available for borrowing (e.g. declining liquidity as the result of a takeover offer or in anticipation of one), there may be a jump in this fee which may then result in a reduction in the value of the Factor Index.

- ***Change in the tax treatment of dividends***

The Index Sponsor may take into account dividend payments or cash amounts equivalent to dividends (taking also into account the relevant dividend taxation) paid in relation to a constituent of the relevant underlying of the Factor Index in the course of the calculation of the Factor Index if provided for in the applicable methodology of the Factor Index. The consideration of dividend payments (or cash amount equivalent to dividends) may reduce the value of the Factor Index and therefore also of the Securities. The effect will be greater the higher the dividend and/or the dividend taxation. A change in the tax treatment of dividends (from the point of view of the Index Sponsor) may mean that the Index Sponsor will no longer include dividends distributed on a constituent of the relevant underlying of the Factor Index in the same amounts as before.

- ***Risk factors due to consideration of volatility component***

The investor must consider that, for the purposes of calculating the Factor Index an ongoing volatility component (based on a long-term and short-term average of a corresponding implied volatility indicator (e.g. the VDAX)) may be deducted from the level of the Factor Index, if provided for in the applicable methodology of the Factor Index. The volatility component reflects the hedging costs in relation to unexpected market movements of the underlying over night (so-called Gap Risk). The consideration of the volatility component generally results in a reduction in the value of the Factor Index and therefore also of the Factor Warrants.

5.2.4. Risk Factors due to the intraday index adjustment

If a certain threshold pursuant the methodology of the Factor Index is broken, the methodology provides for an intraday index adjustment that results in an immediate realization of the losses accrued.

Factor Indices provide for an intraday index adjustment if the losses in the Factor Index reach a certain barrier. This mechanism can only mitigate further losses in the Factor Index (and accordingly further losses in value of the respective Factor Warrant), but the losses may nevertheless be substantial. Therefore, the barrier should not be regarded as a "safety buffer" and the amount of losses also depends on the level of the barrier. The intraday index

adjustment results in an immediate realization of the losses accrued, since any recovery in value can only start from this index level which is now lower.

An intraday index adjustment can also result in losses in the Factor Index and therefore in the value of the Securities in the event of significant intraday fluctuations in the underlying. This will be the case, for example, even if the underlying returns to its initial level by the close of trading.

5.2.5. Risk factors relating to the unlimited term of the Factor Warrants, the Issuer's extraordinary and ordinary termination right and particularities in relation to the exercise of the Factor Warrants by the Holder

Factor Warrants do not have a fixed term; Holders bear the risk that the term ends in the case of an ordinary or extraordinary termination.

Factor Warrants do not have a fixed term. The term ends either:

- (a) if the Factor Warrants are exercised by the Holder, or
- (b) if the Factor Warrants are ordinarily or extraordinarily terminated by the Issuer pursuant to the Conditions.

Due to the termination right of the Issuer, Holders should not rely on being able to hold a position in the Factor Warrants for an extended period of time.

Holders have the right to exercise the Factor Warrants on a daily basis. In the case of any exercise of Factor Warrants, there will be a time lag between the time a Holder gives instructions to exercise and the time the applicable Settlement Amount relating to such exercise is determined, i.e. the **Final Value of the Factor Index used for the calculation of the Settlement Amount will, depending on the underlying, be determined within a period of up to five Business Days (as specified in the applicable Final Terms) following the valid exercise of the Factor Warrants.** The applicable Final Value may change significantly during any such period, and such movement or movements could decrease the Settlement Amount of the Factor Warrants being exercised and may result in such Settlement Amount being zero (0) in the case that the Final Value of the Factor Index is zero (0).

6. Product No. 6. Specific risk factors applicable to Discount Certificates

6.1. Risk of total loss

If the Final Level is below a specific threshold (Cap) the Holder has a risk of significant losses. The lower the Final Level, the lower the Settlement Amount. A total loss occurs if the Final Level is worthless.

Holders should note that if a price of the Reference Asset on the Valuation Date specified in the applicable Final Terms (the "**Final Level**") is below a certain threshold (the "**Cap**") specified in the applicable Final Terms, Discount Certificates are comparable with a direct investment in the Reference Asset (without taking into account dividend payments). Therefore, the Holder has a risk of significant losses up to a total loss with regard to the invested capital. The lower the Final Level, the lower the Settlement Amount. A total loss will occur if the Final Level is worthless.

6.2. Settlement Amount is limited to Maximum Amount

The Holder does not participate in a price movement of the Reference Asset above the Cap; the Settlement Amount will not exceed the Maximum Amount in any case with the result that the possible yield on Discount Certificates has an upper limit.

In the case of Discount Certificates, the Settlement Amount will not exceed the Maximum Amount specified in the applicable Final Terms. This means that the Holder does not participate in a price movement of the Reference Asset above the Cap, with the result that the possible yield on Discount Certificates has an upper limit.

7. Product No. 7. Specific risk factors applicable to Barrier Discount Certificates

7.1. Risk of total loss in the case of a Barrier Event

If a Barrier Event occurs the entitlement to receive a redemption in an amount equal to the Maximum Amount expires and the Holder has a risk of significant losses. The lower the Final Level, the lower the Settlement Amount. A total loss occurs if the Final Level is worthless.

Holders should note that if a Barrier Event occurs, the entitlement to a redemption in the amount equal to the Maximum Amount expires, and that the Barrier Discount Certificates are comparable with a direct investment in the Reference Asset (without taking into account dividend payments) up to a threshold specified in the respective Final Terms (the "**Cap**"). Therefore, the Holder has a risk of significant losses up to a total loss with regard to the invested capital. The lower the price of the Reference Asset on the Valuation Date (the "**Final Level**"), the lower the Settlement Amount. A total loss occurs if the Final Level is worthless.

The occurrence of a "**Barrier Event**" is further described in the applicable Final Terms and occurs, for example, if a specified price of the Reference Asset (the "**Barrier Observation Price**") breaches the Barrier at any time during the Barrier Observation Period (if Barrier Observation Period is stated to be applicable in the applicable Final Terms) or on the Valuation Date (if Barrier Observation Period is stated to be not applicable in the applicable Final Terms).

An important determinant for the probability of the occurrence of a Barrier Event is the volatility of the Reference Asset. The term "**Volatility**" means the fluctuation margin or price movements of the Reference Asset. The higher the volatility of a Reference Asset, the higher the risk to the Holder that the Barrier will be broken. An increasing probability of a Barrier break tends to result in a declining price of the Security. Furthermore, with regard to Barrier Discount Certificates with American barrier observation, it should be noted that the longer the Barrier Observation Period, the higher the risk of breaching the Barrier.

7.2. Settlement Amount is limited to Maximum Amount

The Holder does not participate in a price movement of the Reference Asset above the Cap; the Settlement Amount will not exceed the Maximum Amount in any case with the result that the possible yield on Barrier Discount Certificates has an upper limit.

In the case of Barrier Discount Certificates, the Settlement Amount will not exceed the Maximum Amount specified in the applicable Final Terms. This means that the Holder does not participate in a price movement of the Reference Asset above the Cap, with the result that the possible yield on Barrier Discount Certificates has an upper limit.

8. Product No. 8. Specific risk factors applicable to Bonus Certificates

8.1. Risk of total loss in the case of a Barrier Event

If a Barrier Event occurs the entitlement to a minimum redemption (Bonus Amount) expires and the Holder has a risk of significant losses. The lower the Final Level, the lower the Settlement Amount. A total loss occurs if the Final Level is worthless.

Holders should note that if a Barrier Event occurs, the entitlement to a minimum redemption that equals a minimum amount defined in the respective Final Terms (the "**Bonus Amount**") expires, and that the Bonus Certificates are comparable with a direct investment in the Reference Asset (irrespective of dividend payments). Therefore, the Holder has a risk of significant losses up to a total loss with regard to the invested capital. The lower the price of the Reference Asset on the Valuation Date (the "**Final Level**"), the lower the Settlement Amount. A total loss occurs if the Final Level is worthless.

The occurrence of a "**Barrier Event**" is further described in the applicable Final Terms and occurs, for example, if a specified price of the Reference Asset (the "**Barrier Observation Price**") breaches the Barrier at any time during the Barrier Observation Period (if Barrier Observation Period is stated to be applicable in the applicable Final Terms) or on the

Valuation Date (if Barrier Observation Period is stated to be not applicable in the applicable Final Terms).

An important determinant for the probability of the occurrence of a Barrier Event is the volatility of the Reference Asset. The term "**Volatility**" means the fluctuation margin or price movements of the Reference Asset. The higher the volatility of a Reference Asset, the higher the risk to the Holder that the Barrier will be broken. An increasing probability of a Barrier break tends to result in a declining price of the Security. Furthermore, with regard to Bonus Certificates with American barrier observation, it should be noted that the longer the Barrier Observation Period, the higher the risk of breaching the Barrier.

The price of Bonus Certificates may include a premium. The premium indicates by what percentage the Bonus Certificate is more expensive than the Reference Asset (adjusted by the ratio). The premium is paid by the Holder of the Bonus Certificate for partial protection and the chance of receiving the Bonus Amount. The amount of the premium depends, among other things, on the Bonus Level and the Barrier, the spread between the price of the Reference Asset and the Bonus Level and/or the Barrier, the remaining term of the Bonus Certificate, the volatility of the Reference Asset or any dividends paid on the Reference Asset. The amount of the premium may vary considerably from time to time. This leads to price risks in the product and this can have a negative impact on the pricing of the product in the secondary market, even if the price of the Reference Asset moves in the expected direction. If the Barrier is breached, the premium is lost in addition to the chance of receiving the Bonus Amount, i.e. after a breach of the Barrier, the price development of the Bonus Certificate follows the performance of the Reference Asset until the end of the term of the Bonus Certificate. Compared to a direct investment in the Reference Asset, the Holder can therefore suffer disproportionately high losses.

9. Product No. 9. Specific risk factors applicable to Reverse Bonus Certificates

9.1. Risk of a total loss in the case of a Barrier Event

If a Barrier Event occurs the entitlement to a minimum redemption (Bonus Amount) expires and the Holder has a risk of significant losses. The higher the Final Level, the lower the Settlement Amount. A total loss occurs if the Final Level is equal to or above a certain threshold (Reverse Level).

Holders should note that in the case of a reverse structure the performance of the Securities reversely depends on the performance of the Reference Asset. Accordingly, a Reverse Bonus Certificate typically declines in value (i.e. irrespective of other features and factors that determine the price of Securities), if the price of the Reference Asset increases. If a Barrier Event occurs, the entitlement to a minimum redemption that equals a minimum amount defined in the respective Final Terms (the "**Bonus Amount**") expires and the Holder inversely participates in the performance of the Reference Asset. If a Barrier Event occurs the Holder has a risk of significant losses up to a total loss with regard to the invested capital. The higher the price of the Reference Asset on the Valuation Date (the "**Final Level**"), the lower the Settlement Amount. A total loss occurs if the Final Level is equal to or above a threshold (the "**Reverse Level**") specified in the applicable Final Terms.

The occurrence of a "**Barrier Event**" is further described in the applicable Final Terms and occurs, for example, if a specified price of the Reference Asset (the "**Barrier Observation Price**") breaches the Barrier at any time during the Barrier Observation Period (if Barrier Observation Period is stated to be applicable in the applicable Final Terms) or on the Valuation Date (if Barrier Observation Period is stated to be not applicable in the applicable Final Terms).

An important determinant of the probability of the occurrence of a Barrier Event is the volatility of the Reference Asset. The term "**Volatility**" means the fluctuation margin or price fluctuations of the Reference Asset. The higher the Volatility of a Reference Asset, the higher the risk to the Holder that the Barrier will be broken. An increasing probability of a Barrier break tends to result in the price of the Security declining. Furthermore, with regard to Reverse Bonus Certificates with American barrier observation, it should be noted that the

longer the Barrier Observation Period, the higher the risk of breaching the Barrier.

9.2. Leverage effect in the case of Reverse Bonus Certificates due to the reverse structure

A lower Reverse Level leads to a higher leverage effect and, therefore, to a higher risk of loss.

There exists a leverage effect in the case of Reverse Bonus Certificates, the amount of which results from the Reverse Level. Leverage effect means that a change in the price of the Reference Asset leads to a disproportionate change in the price of the Securities. A lower Reverse Level leads to a higher leverage effect and, therefore, to a higher risk of loss. Especially with high Bonus Amounts and Reverse Levels close to the Barrier, this can lead to potentially higher losses if a Barrier Event occurs.

9.3. Limited yield potential due to reverse structure and irrespective of a Cap

The yield on these Securities has an upper limit due to the reverse structure since the negative performance of the Reference Asset is limited to 100%.

Holders should note that the yield is limited (regardless of a maximum redemption factor and/or cap) due to the reverse structure, since the participation in the negative performance of the Reference Asset is limited to 100%. The Settlement Amount is limited to the Reverse Level (taking into account the Ratio and, as the case may be, conversion into the Specified Currency).

Accordingly, in the case of Reverse Bonus Certificates, the following relationship exists in principle between the economic value of the Securities and the economic price of the Reference Asset: Reverse Bonus Certificates typically decline in value (i.e. irrespective of other features and factors that determine the price of Securities), if the price of the Reference Asset increases. Accordingly, a Holder may suffer a total loss of the invested capital if the Final Level of the Reference Asset increases and reaches or exceeds the Reverse Level.

10. Product No. 10. Specific risk factors applicable to Capped Bonus Certificates

10.1. Risk of total loss in the case of a Barrier Event

If a Barrier Event occurs the entitlement to a minimum redemption (Bonus Amount) expires and the Holder has a risk of significant losses. The lower the Final Level, the lower the Settlement Amount. A total loss occurs if the Final Level is worthless.

Holders should note that if a Barrier Event occurs, the entitlement to a minimum redemption that equals a minimum amount defined in the respective Final Terms (the "**Bonus Amount**") expires, and that the Capped Bonus Certificates are comparable with a direct investment in the Reference Asset (irrespective of dividend payments) up to a threshold specified in the respective Final Terms (the "**Cap**"). Therefore, the Holder has a risk of significant losses up to a total loss with regard to the invested capital. The lower the price of the Reference Asset on the Valuation Date (the "**Final Level**"), the lower the Settlement Amount. A total loss occurs if the Final Level is worthless.

The occurrence of a "**Barrier Event**" is further described in the applicable Final Terms and occurs, for example, if a specified price of the Reference Asset (the "**Barrier Observation Price**") breaches the Barrier at any time during the Barrier Observation Period (if Barrier Observation Period is stated to be applicable in the applicable Final Terms) or on the Valuation Date (if Barrier Observation Period is stated to be not applicable in the applicable Final Terms).

An important determinant for the probability of the occurrence of a Barrier Event is the volatility of the Reference Asset. The term "**Volatility**" means the fluctuation margin or price movements of the Reference Asset. The higher the volatility of a Reference Asset, the higher the risk to the Holder that the Barrier will be broken. An increasing probability of a Barrier break tends to result in a declining price of the Security. Furthermore, with regard to Capped Bonus Certificates with American barrier observation, it should be noted that the longer the Barrier Observation Period, the higher the risk of breaching the Barrier.

The price of Capped Bonus Certificates may include a premium. The premium indicates by what percentage the Capped Bonus Certificate is more expensive than the Reference Asset (adjusted by the ratio). The premium is paid by the Holder of the Capped Bonus Certificate for partial protection and the chance of receiving the Bonus Amount. The amount of the premium depends, among other things, on the Bonus Level and the Barrier, the spread between the price of the Reference Asset and the Bonus Level and/or the Barrier, the remaining term of the Capped Bonus Certificate, the volatility of the Reference Asset or any dividends paid on the Reference Asset. The amount of the premium may vary considerably from time to time. This leads to price risks in the product and this can have a negative impact on the pricing of the product in the secondary market, even if the price of the Reference Asset moves in the expected direction. If the Barrier is breached, the premium is lost in addition to the chance of receiving the Bonus Amount, i.e. after a breach of the Barrier, the price development of the Capped Bonus Certificate follows the performance of the Reference Asset until the end of the term of the Capped Bonus Certificate. Compared to a direct investment in the Reference Asset, the Holder can therefore suffer disproportionately high losses.

10.2. Settlement Amount is limited to Maximum Amount

The Holder does not participate in a price movement of the Reference Asset above the Cap; the Settlement Amount will not exceed the Maximum Amount in any case with the result that the possible yield on Capped Bonus Certificates has an upper limit.

Irrespective of whether or not a Barrier Event has occurred, the Settlement Amount will not exceed the Maximum Amount specified in the applicable Final Terms. This means that the Holder does not participate in a price movement of the Reference Asset above the Cap, with the result that the possible yield on Capped Bonus Certificates has an upper limit.

11. Product No. 11. Specific risk factors applicable to Capped Reverse Bonus Certificates

11.1. Risk of a total loss in the case of a Barrier Event

If a Barrier Event occurs the entitlement to a minimum redemption (Bonus Amount) expires and the Holder has a risk of significant losses. The higher the Final Level, the lower the Settlement Amount. A total loss occurs if the Final Level is equal to or above a certain threshold (Reverse Level).

Holders should note that in the case of a reverse structure the performance of the Securities reversely depends on the performance of the Reference Asset. Accordingly, a Capped Reverse Bonus Certificate typically declines in value (i.e. irrespective of other features and factors that determine the price of Securities), if the price of the Reference Asset increases. If a Barrier Event occurs, the entitlement to a minimum redemption that equals a minimum amount defined in the respective Final Terms (the "**Bonus Amount**") expires and the Holder inversely participates in the performance of the Reference Asset up to the level of a threshold defined by the respective Final Terms (the "**Cap**"). If a Barrier Event occurs the Holder has a risk of significant losses up to a total loss with regard to the invested capital. The higher the price of the Reference Asset on the Valuation Date (the "**Final Level**"), the lower the Settlement Amount. A total loss occurs if the Final Level is equal to or above a threshold (the "**Reverse Level**") specified in the applicable Final Terms.

The occurrence of a "**Barrier Event**" is further described in the applicable Final Terms and occurs, for example, if a specified price of the Reference Asset (the "**Barrier Observation Price**") breaches the Barrier at any time during the Barrier Observation Period (if Barrier Observation Period is stated to be applicable in the applicable Final Terms) or on the Valuation Date (if Barrier Observation Period is stated to be not applicable in the applicable Final Terms).

An important determinant of the probability of the occurrence of a Barrier Event is the volatility of the Reference Asset. The term "**Volatility**" means the fluctuation margin or price fluctuations of the Reference Price. The higher the Volatility of a Reference Asset, the higher the risk to the Holder that the Barrier will be broken. An increasing probability of a Barrier break tends to result in the price of the Security declining. Furthermore, with regard to Capped

Reverse Bonus Certificates with American barrier observation, it should be noted that the longer the Barrier Observation Period, the higher the risk of breaching the Barrier.

11.2. Leverage effect in the case of Capped Reverse Bonus Certificates due to the reverse structure

A lower Reverse Level leads to a higher leverage effect and, therefore, to a higher risk of loss.

There exists a leverage effect in the case of Capped Reverse Bonus Certificates, the amount of which results from the Reverse Level. Leverage effect means that a change in the price of the Reference Asset leads to a disproportionate change in the price of the Securities. A lower Reverse Level leads to a higher leverage effect and, therefore, to a higher risk of loss. Especially with high Bonus Amounts and Reverse Levels close to the Barrier, this can lead to potentially higher losses if a Barrier Event occurs.

11.3. Settlement Amount is limited to Maximum Amount

The Holder does not participate in a negative price movement of the Reference Asset below the Cap; the Settlement Amount does not exceed the Maximum Amount in any case with the result that the possible yield on the Securities has an upper limit.

In the case of Capped Reverse Bonus Certificates, the Settlement Amount will not exceed the maximum amount defined in the respective Final Terms (the "**Maximum Amount**"). This means that the Holder does not participate in a negative price movement of the Reference Asset below the Cap and the Settlement Amount will not exceed the Reverse Level minus the Cap (taking into account the Ratio and, as the case may be, conversion into the Specified Currency) with the result that the possible yield on the Securities has an upper limit.

12. Product No. 12. Specific risk factors applicable to Reverse Convertibles

12.1. Risk of total loss in the case of Reverse Convertibles

If the Final Level is below a specific threshold (Strike) the Holder has a risk of significant losses. The lower the Final Level, the lower the Settlement Amount. A total loss (other than the fixed coupon payment(s)) occurs if the Final Level is worthless and/or the equivalent value of the delivered Reference Asset and/or shares of an Exchange Traded Fund is worthless on delivery.

The Settlement Amount and, if applicable, the type of settlement (cash settlement or physical delivery) depend on the development of the Reference Asset.

- *In the case of Reverse Convertibles, which in accordance with the applicable Final Terms provide for settlement by cash settlement in all cases, the following should be taken into account:*

Holders should note that if a price of the Reference Asset on the Valuation Date specified in the applicable Final Terms (the "**Final Level**") is equal to or below a certain threshold (the "**Strike**") specified in the applicable Final Terms, Reverse Convertibles are comparable with a direct investment in the Reference Asset (without taking into account dividend payments). In this case, the Settlement Amount is generally lower than the Nominal and/or the Calculation Amount. The lower the Final Level, the lower the Settlement Amount. A total loss (other than the fixed coupon payment(s)) occurs if the Final Level is worthless.

Reverse Convertibles provide for fixed coupon payment(s) during the term irrespective of the development of the Reference Asset, which is determined at issuance. Since the potential yield of the Securities can generally only result from the coupon payment, the investment in the Securities may turn out to be less profitable than a direct investment in the Reference Asset, provided that the fixed coupon payments can no longer compensate for the negative development of the Reference Asset and the resulting capital loss. The loss corresponds to the difference between (i) the purchase price paid for the Security (plus transaction

costs) and (ii) the Settlement Amount plus the coupon payment(s). Furthermore, in connection with the fixed coupon payment(s) it should be noted that the Holder does not participate in an increase in market interest rates. In the case of increasing market interest rates, there is a risk that the price of the Securities may decrease during the term.

- *In the case of Reverse Convertibles, which in accordance with the applicable Final Terms may provide for settlement by physical settlement, the following should be taken into account:*

Holders should note that if a price of the Reference Asset on the Valuation Date specified in the applicable Final Terms (the "**Final Level**") is equal to or below a certain threshold (the "**Strike**") specified in the applicable Final Terms, the Securities are settled by physical delivery of the Reference Asset or shares of an Exchange Traded Fund. The equivalent value of the delivered Reference Asset or shares of an Exchange Traded Fund is generally lower than the Nominal and/or the Calculation Amount. A total loss (other than the fixed coupon payment(s)) usually occurs if the equivalent value of the delivered Reference Assets and/or shares of an Exchange Traded Fund is worthless on delivery.

Reverse Convertibles provide for fixed coupon payment(s) during the term irrespective of the development of the Reference Asset, which is determined at issuance. Since the potential yield of the Securities can generally only result from the coupon payment, the investment in the Securities may turn out to be less profitable than a direct investment in the Reference Asset, provided that the fixed coupon payments can no longer compensate for the negative development of the Reference Asset and the resulting capital loss. The loss corresponds to the difference between (i) the purchase price paid for the Security (plus transaction costs) and (ii) the equivalent value of the delivered Reference Assets and/or shares of an Exchange Traded Fund plus the coupon payment(s). Furthermore, in connection with the fixed coupon payment(s) it should be noted that the Holder does not participate in an increase in market interest rates. In the case of increasing market interest rates, there is a risk that the price of the Securities may decrease during the term.

12.2. Settlement Amount is limited to Maximum Amount

The Settlement Amount (regardless of possible coupon payments during the term) will not exceed the Nominal and/or the Calculation Amount in any case with the result that the possible yield on the Securities has an upper limit.

The Holder does not participate in a positive performance of the Reference Asset on the Valuation Date above the Strike. The Holder should consider that the Settlement Amount (regardless of possible coupon payments during the term) will not exceed the Nominal and/or the Calculation Amount in any case with the result that the possible yield on the Securities has an upper limit.

13. Product No. 13. Specific risk factors applicable to Barrier Reverse Convertibles

13.1. Risk of total loss in the case of Barrier Reverse Convertibles

If a Barrier Event has occurred and the Final Level is below a specific threshold (Strike) the Holder has a risk of significant losses. The lower the Final Level, the lower the Settlement Amount. A total loss (other than the fixed coupon payment(s)) occurs if the Final Level is worthless and/or the equivalent value of the delivered Reference Asset and/or shares of an Exchange Traded Fund is worthless on delivery.

The Settlement Amount and, if applicable, the type of settlement (cash settlement or physical delivery) depend on the development of the Reference Asset.

- *In the case of Barrier Reverse Convertibles, which in accordance with the applicable Final Terms provide for settlement by cash settlement in all cases, the following should be taken into account:*

Holders should note that if a Barrier Event has occurred and a price of the Reference Asset on the Valuation Date specified in the applicable Final Terms (the "**Final Level**") is equal to or below a certain threshold (the "**Strike**") specified in the applicable Final Terms, Barrier Reverse Convertibles are comparable with a direct investment in the Reference Asset (without taking into account dividend payments). In this case, the Settlement Amount is generally lower than the Nominal and/or the Calculation Amount. The lower the Final Level, the lower the Settlement Amount. A total loss (other than the fixed coupon payment(s)) occurs if the Final Level is worthless.

The occurrence of a "**Barrier Event**" is further described in the applicable Final Terms and occurs, for example, if a specified price of the Reference Asset (the "**Barrier Observation Price**") breaches the Barrier at any time during the Barrier Observation Period. An important determinant for the probability of the occurrence of a Barrier Event is the volatility of the Reference Asset. The term "**Volatility**" means the fluctuation margin or price movements of the Reference Asset. The higher the volatility of the Reference Asset, the higher the risk to the Holder that the Barrier will be broken. An increasing probability of a Barrier break tends to result in a declining price of the Security. Furthermore, it should be noted that the longer the Barrier Observation Period, the higher the risk of breaching the Barrier.

Barrier Reverse Convertibles provide for fixed coupon payment(s) during the term irrespective of the development of the Reference Asset, which is determined at issuance. Since the potential yield of the Securities can generally only result from the coupon payment, the investment in the Securities may turn out to be less profitable than a direct investment in the Reference Asset, provided that the fixed coupon payments can no longer compensate for the negative development of the Reference Asset and the resulting capital loss. The loss corresponds to the difference between (i) the purchase price paid for the Security (plus transaction costs) and (ii) the Settlement Amount plus the coupon payment(s). Furthermore, in connection with the fixed coupon payment(s) it should be noted that the Holder does not participate in an increase in market interest rates. In the case of increasing market interest rates, there is a risk that the price of the Securities may decrease during the term.

- *In the case of Barrier Reverse Convertibles, which in accordance with the applicable Final Terms may provide for settlement by physical settlement, the following should be taken into account:*

Holders should note that if a price of the Reference Asset on the Valuation Date specified in the applicable Final Terms (the "**Reference Price**") is equal to or below a certain threshold (the "**Strike**") specified in the applicable Final Terms, the Securities are settled by physical delivery of the Reference Asset or shares of an Exchange Traded Fund. The equivalent value of the delivered Reference Assets or shares of an Exchange Traded Fund is generally lower than the Nominal and/or the Calculation Amount. A total loss (other than the fixed coupon payment(s)) usually occurs if the equivalent value of the delivered Reference Asset(s) and/or shares of an Exchange Traded Fund is worthless on delivery (see also under "II.2.3 Risks in connection with the physical delivery" for the risks associated with the settlement of the Securities by physical delivery of the Reference Asset(s) of shares of an Exchange Traded Fund).

The occurrence of a "**Barrier Event**" is further described in the applicable Final Terms and occurs, for example, if a specified price of the Reference Asset (the "**Barrier Observation Price**") breaches the Barrier at any time during the Barrier Observation Period. An important determinant for the probability of the occurrence of a Barrier Event is the volatility of the Reference Asset. The term "**Volatility**" means the fluctuation margin or price movements of the Reference Asset. The

higher the volatility of the Reference Asset, the higher the risk to the Holder that the Barrier will be broken. An increasing probability of a Barrier break tends to result in a declining price of the Security. Furthermore, it should be noted that the longer the Barrier Observation Period, the higher the risk of breaching the Barrier.

Barrier Reverse Convertibles provide for fixed coupon payment(s) during the term irrespective of the development of the Reference Asset, which is determined at issuance. Since the potential yield of the Securities can generally only result from the coupon payment, the investment in the Securities may turn out to be less profitable than a direct investment in the Reference Asset, provided that the fixed coupon payments can no longer compensate for the negative development of the Reference Asset and the resulting capital loss. The loss corresponds to the difference between (i) the purchase price paid for the Security (plus transaction costs) and (ii) the equivalent value of the delivered Reference Assets and/or shares of an Exchange Traded Fund plus the coupon payment(s). Furthermore, in connection with the fixed coupon payment(s) it should be noted that the Holder does not participate in an increase in market interest rates. In the case of increasing market interest rates, there is a risk that the price of the Securities may decrease during the term.

13.2. Settlement Amount is limited to Maximum Amount

The Settlement Amount (regardless of possible coupon payments during the term) will not exceed the Nominal and/or the Calculation Amount in any case with the result that the possible yield on the Securities has an upper limit.

The Holder does not participate in a positive performance of the Reference Asset on the Valuation Date above the Strike. The Holder should consider that the Settlement Amount (regardless of possible coupon payments during the term) will not exceed the Nominal and/or the Calculation Amount in any case with the result that the possible yield on the Securities has an upper limit.

14. Product No. 14. Specific risk factors applicable to Open End Certificates

14.1. Risk of total loss

The Holder has a risk of significant losses. The lower the level of the Reference Asset on the Valuation Date, the lower the Settlement Amount. A total loss occurs if the Reference Asset is worthless on the Valuation Date.

Holders should note that Open End Certificates are comparable with a direct investment in the Reference Asset (irrespective of dividend payments and management or quanto fees). Therefore, the Holder is exposed to a risk of loss comparable to the direct investment and the Holder has a risk of significant losses up to a total loss with regard to the invested capital. The lower the Reference Asset on the Valuation Date, the lower the Settlement Amount. A total loss occurs if the Reference Asset is worthless on the Valuation Date (e.g. in the case of a termination by the Issuer).

14.2. Risk factors related to Open End Certificates with Management Fee or Quanto Fee or Transaction Fee

The consideration of a Management Fee or Quanto Fee or Transaction Fee not only reduces the Settlement Amount payable by the Issuer, but also reduces the value of the Securities on the secondary market.

To the extent provided in the applicable Final Terms, a certain Management Fee or Quanto Fee is deducted from the Settlement Amount payable.

The Management Fee compensates the Issuer or entities associated with the Issuer for costs incurred by it (in the absence of foreign exchange hedging) in entering into transactions related to the Reference Asset on the capital markets, which serve to hedge the fulfilment risks

associated with the issuance of the Securities ("**Hedging Transactions**"). The Quanto Fee is charged in order to compensate the Issuer for hedging costs in hedging foreign exchange risk.

It should be noted that a Management Fee or Quanto Fee not only reduces the Settlement Amount payable by the Issuer, whereby the Final Value and/or the Performance of the Reference Asset is multiplied by a Management Factor or Fee Factor (consisting of the Management Fee and Quanto Fee) calculated pursuant to the Issue Specific Conditions, but also reduces the value of the Securities on the secondary market during their term. Such a Management Fee or Quanto Fee is incorporated in the calculation of the bid and ask prices for Securities on the secondary market according to the portion of the term of the Securities that has already expired.

The Issuer is entitled to adjust the level of the Management Fee during the term of the Securities. In the case of a Management Fee greater than zero (0), the effect of the Management Fee will be greater, the longer the holding period in which it applies to the Securities.

Exchange rate hedging costs may vary considerably according to market conditions and may have either a significant negative or a significant positive value. This will be reflected in the current Quanto Fee. Should the exchange rate hedging costs be significantly positive, the Quanto Fee will increase and lead to a lower Settlement Amount. Should the exchange rate hedging costs be significantly negative, the Quanto Fee will be smaller and the Settlement Amount will be higher. As the term increases, it is relatively unlikely that a negative Quanto Fee will offset the Management Fee and that the Fee Factor will have a positive effect for the Holder. The level of the Quanto Fee is set by the Issuer on the basis of the current market parameters. Five factors in particular are influential in determining these costs: the interest rate of the Reference Currency, the interest rate of the Specified Currency that is being hedged, the volatility of the Reference Asset, the volatility of the exchange rate between the Reference Currency and the Specified Currency, and the correlation between the price of the Reference Asset and the performance of the exchange rate. The costs may be increased as a result of an increasing interest rate in the Reference Currency, a falling interest rate in the Specified Currency, as well as increasing volatilities and an increasing correlation. This may lead to a higher Quanto Fee and consequently to a lower investment yield, all other conditions remaining the same.

In the case of Open End Certificates linked to Futures Contracts, it is to be noted that a "**Transaction Fee**" may be calculated to cover the transaction costs arising from the Rollover. The amount of such Transaction Fee is based on a number per Futures Contract, expressed in the Reference Currency. The application of the transaction costs to the Ratio leads to a loss in value of the Securities if the Transaction Fee is greater than zero (0). It must further be noted that the Transaction Fee is incurred both in respect of the purchase and the sale of the Futures Contracts in the case of a Rollover, and therefore has to be considered twice when determining the adjusted Ratio.

14.3. Risk factors relating to the unlimited term of the Open End Certificates, the Issuer's ordinary and extraordinary termination right and particularities in relation to the exercise of the Open End Certificates by the Holder

Open End Certificates do not have a fixed term; Holders bear the risk that the term ends in the case of an ordinary or extraordinary termination.

Open End Certificates do not have a fixed term. The term ends either:

- (a) if the Open End Certificates are exercised by the Holder, or
- (b) if the Open End Certificates are ordinarily or extraordinarily terminated by the Issuer pursuant to the Conditions.

Therefore, Holders should not rely on being able to hold a position in the Open End Certificates for an extended period of time.

Holders have the right to exercise the Open End Certificates on a daily basis. In the case of any exercise of Open End Certificates, there will be a time lag between the time a Holder gives instructions to exercise and the time the applicable Settlement Amount relating to such exercise is determined, i.e. the **Final Value of the Reference Asset used for the calculation of the Settlement Amount will, depending on the Reference Asset, be determined within a period of up to five Business Days (as specified in the applicable Final Terms) following the valid exercise of the Open End Certificates.** The applicable Final Value may change significantly during any such period, and such movement or movements could decrease the Settlement Amount of the Open End Certificates being exercised.

14.4. Risk factors in connection with an extraordinary automatic exercise

If the price of the relevant Futures Contract and/or - in the case of a Rollover - the Rollover Price of the relevant Futures Contract after the Rollover is zero or negative, the Securities are extraordinarily automatically exercised. In this case the Holder may suffer a total loss.

If the Open End Certificates are linked to a Futures Contract and if "Extraordinary Automatic Exercise" is applicable pursuant to the respective Final Terms, the Securities are extraordinarily automatically exercised, if the price of the relevant Futures Contract and/or - in the case of a Rollover - the Rollover Price of the relevant Futures Contract after the Rollover is zero or negative. In this case the Holder receives the Settlement Amount that may be zero (0). The Holder suffers a total loss in this case.

15. Product No. 15. Specific risk factors applicable to Discount Warrants

15.1. Risk of total loss

In the case of Discount Warrants there is a risk that the Holder suffers significant losses. The lower (in the case of Discount Call Warrants) and/or the higher (in the case of Discount Put Warrants) the Final Level, the lower the Settlement Amount. A total loss occurs if the Final Level is equal to or below (in the case of Discount Call Warrants) and/or equal to or above (in the case of Discount Put Warrants) the Strike.

Subject to the payment of the Maximum Amount, the Settlement Amount of Discount Warrants is calculated – in the case of Discount Call Warrants – by the difference between a price of the Reference Asset on the Valuation Date (the "**Final Level**") and the Strike (taking into account the Ratio) and/or – in the case of Discount Put Warrants – by the difference between the Strike and the Final Level (taking into account the Ratio). In the case of Discount Warrants there is a risk that the Holder suffers significant losses up to a total loss of the invested capital. A total loss occurs if the Final Level is equal to or below the Strike (in the case of Discount Call Warrants) and/or equal to or above the Strike (in the case of Discount Put Warrants). If provided for in the relevant Final Terms, the Settlement Amount may be at least equal to a minimum amount specified in the Final Terms. This minimum amount may be zero or close to zero so that, even if a minimum amount is provided for, the Holder will receive no or only a small redemption.

Holders should consider that JPMorgan Chase & Co. and its consolidated subsidiaries (together "**JPMorgan Chase**") does not commit or is not under any obligation legal or otherwise towards the Holders to quote bid and ask prices for Discount Warrants. Holders should therefore not rely on being able to purchase or sell Discount Warrants at any time.

The price of the Discount Warrants during the term depends in particular on the price of the Reference Asset during the term. Generally, the price of the Discount Warrants falls if the price of the Reference Asset falls (Discount Call Warrants) or rises (Discount Put Warrants). A decrease or increase in the Reference Asset typically has a disproportionately great effect on the price of the Discount Warrants.

In addition to the price of the Reference Asset, the price of the Discount Warrant is also dependent on the volatility of the Reference Asset, whereby a decrease of the expected volatility of the Reference Asset generally leads to a decrease of the price of the Discount Warrant. Furthermore the borrow costs of the Reference Asset, the interest rate level, and any dividend expectations, as well as applicable taxes on any dividend payments will influence the

secondary market price of the Discount Warrants. The value of the Discount Warrants will decrease as the time to expiry decreases. Therefore, the absence of an expected move of the Reference Asset will cause the investor to lose a part or all of its invested money.

15.2. Risk due to the leverage effect

The Holder bears the risk of strong price fluctuations of Discount Warrants whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Discount Warrants.

Discount Warrants are particularly risky financial instruments whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Discount Warrants. Leverage effect means that a change in the price of the Reference Asset leads to a disproportionate change in the price of the Discount Warrants. The leverage effect results from the fact that the Holder has to invest a lower capital for an investment in Discount Warrants compared to a direct investment in the Reference Asset. As a rule, the following applies: If the price of the Reference Asset of a Discount Call Warrant declines, the price of the Discount Call Warrant declines disproportionately. If the price of the Reference Asset of a Discount Put Warrant rises, the price of the Discount Put Warrant falls disproportionately. The greater the leverage effect of the Discount Warrants, the higher the risk of losses. Due to the leverage effect the Discount Warrants involve disproportionate risks of loss compared to a direct investment in the Reference Asset (risk of total loss).

15.3. Risk due to the Cap and/or Floor

The Holder does not participate in the performance of the Reference Asset above the Cap (in the case of Discount Call Warrants) or below the Floor (in the case of Discount Put Warrants). The Settlement Amount will not exceed the Maximum Amount, which is why the possible yield of Discount Warrants is limited.

Holders of Discount Call Warrants should note that the Settlement Amount will in any case be capped to the difference between the Cap and the Strike multiplied by the Ratio (Maximum Amount). Therefore, Holders should be aware that, in contrast to a direct investment in the Reference Asset, they do not participate in the performance of the Reference Asset beyond the Cap and, therefore, the possible yield of the Discount Call Warrants is limited.

Holders of Discount Put Warrants should note that the Settlement Amount will in any case be capped to the difference between the Strike and the Floor multiplied by the Ratio (Maximum Amount). Therefore, Holders should be aware that, in contrast to a direct investment in the Reference Asset, they do not participate in the performance of the Reference Asset below the Floor and, therefore, the possible yield of the Discount Put Warrants is limited.

15.4. Risk related to the limited term of Discount Warrants

Discount Warrants are only exercisable on the Valuation Date and cannot be exercised by the Holder on any other day during the term.

The term of Discount Warrants is fixed. The Settlement Amount of the Discount Warrants is paid out by the Issuer on a specific date defined in the Final Terms. The Discount Warrants have a "European Style", so they are only exercisable on the Valuation Date and cannot be exercised by the Holder on any other day during the term.

16. Product No. 16. Specific risk factors applicable to Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates

16.1. Risk of a total loss in the case of the occurrence of a Stop-Loss Event

In the case of Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates there is a risk that the Holder suffers significant losses. Furthermore, in the case of Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants

and/or Closed-End X-Turbo Certificates, there is the risk that the products expire worthless during their term, if a so-called Stop-Loss Event has occurred.

The Settlement Amount of Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates is calculated – in the case of Closed-End Mini Future Long Warrants and/or Closed-End Turbo Certificates Long and/or Closed-End X-Mini Future Long Warrants and/or Closed-End X-Turbo Certificates Long – by the difference between the price of the Reference Asset on the Valuation Date (the "**Final Level**") and the Strike (taking into account the Ratio) and/or – in the case of Closed-End Mini Future Short Warrants and/or Closed-End Turbo Certificates Short and/or Closed-End X-Mini Future Short Warrants and/or Closed-End X-Turbo Certificates Short – by the difference between the Strike and the Final Level (taking into account the Ratio). In the case of Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates there is a risk that the Holder suffers significant losses up to a total loss of the invested capital. A total loss occurs if the Final Level is equal to or below the Strike (in the case of in case of Closed-End Mini Future Long Warrants and/or Closed-End Turbo Certificates Long and/or Closed-End X-Mini Future Long Warrants and/or Closed-End X-Turbo Certificates Long) and/or equal to or above the Strike (in the case of Closed-End Mini Future Short Warrants and/or Closed-End Turbo Certificates Short and/or Closed-End X-Mini Future Short Warrants and/or Closed-End X-Turbo Certificates Short).

Furthermore, Holders in Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates bear the risk that the Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates expire worthless during their term, if a so-called Stop-Loss Event has occurred. A "**Stop-Loss Event**" occurs, if a price of the Reference Asset defined in the applicable Final Terms (the "**Stop-Loss Observation Price**") reaches or falls below (in the case of Closed-End Mini Future Long Warrants and/or Closed-End Turbo Certificates Long and/or Closed-End X-Mini Future Long Warrants and/or Closed-End X-Turbo Certificates Long) and/or reaches or exceeds (in the case of Closed-End Mini Future Short Warrants and/or Closed-End Turbo Certificates Short and/or Closed-End X-Mini Future Short Warrants and/or Closed-End X-Turbo Certificates Short) a predefined price or value threshold (the so-called "**Stop-Loss Barrier**"). The Holder must always be aware that even a single reaching or falling below (in the case of Closed-End Mini Future Long Warrants and/or Closed-End Turbo Certificates Long and/or Closed-End X-Mini Future Long Warrants and/or Closed-End X-Turbo Certificates Long) or reaching or exceeding (in the case of Closed-End Mini Future Short Warrants and/or Closed-End Turbo Certificates Short and/or Closed-End X-Mini Future Short Warrants and/or Closed-End X-Turbo Certificates Short) of the Stop-Loss Barrier by the Stop-Loss Observation Price leads to the occurrence of a Stop-Loss Event. In this context, it should be noted that the determination of the occurrence of a Stop-Loss Event may be based on prices of the Reference Asset which are determined during regular trading sessions other than the trading sessions of Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates, so that there is a risk for the Holder that he is not aware or not aware in time of the threat of a Stop-Loss Event (in relation to particularities for Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates see below under "Specific risks applicable to Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates").

If a Stop-Loss Event occurs, the term of the Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates ends automatically, the Security Right or the right to payment of a Settlement Amount expires automatically and the Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or X-Turbo Certificates expire worthless, subject to a potential payout of the residual price of the Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates (the so-called "**Stop-Loss Settlement Amount**"). Holders should note in this context that the value of the Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future

Warrants and/or Closed-End X-Turbo Certificates is reduced disproportionately compared to warrants, if the price of the Reference Asset approaches the Stop-Loss Barrier.

An important determinant for the probability of the occurrence of a Stop-Loss Event is the volatility of the Reference Asset. The term "**Volatility**" means the fluctuation margin or price movements of the Reference Asset. The higher the Volatility of the Reference Asset, the higher the risk of breaching the Stop-Loss Barrier.

Holders cannot rely on being able to exercise the Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates at all times prior to the occurrence of a Stop-Loss Event. Even if all other exercise preconditions set forth in the Conditions are fulfilled, an exercise is impossible on the day on which a Stop-Loss Event occurs. All submitted Exercise Notices that have not been executed become automatically void on the occurrence of the Stop-Loss Event.

It should also be noted that during the occurrence of a Stop-Loss Event and the phase during which the Stop-Loss Reference Price is determined, no continuous bid and ask prices may be quoted for the Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates on the secondary market by JPMorgan Chase. Furthermore, no continuous bid and ask prices may be quoted for the Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates on the secondary market by JPMorgan Chase outside of the trading hours of the Reference Asset, if JPMorgan Chase expects a Stop-Loss Event to occur due to different price indicators than the official relevant price of the Reference Asset. Holders should consider in this context that JPMorgan Chase does not commit or is not under any obligation legal or otherwise towards the Holders to quote bid and ask prices for the Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates. Holders should therefore not rely on being able to purchase or sell the Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates at any time.

It must also be considered that Holders may suffer a total loss of the invested capital if the Stop-Loss Reference Price falls to or below the Strike (in the case of Closed-End Mini Future Long Warrants and/or Closed-End Turbo Certificates Long and/or Closed-End X-Mini Future Long Warrants and/or Closed-End X-Turbo Certificates Long) or increases to or above the Strike (in the case of Closed-End Mini Future Short Warrants and/or Closed-End Turbo Certificates Short and/or Closed-End X-Mini Future Short Warrants and/or Closed-End X-Turbo Certificates Short). Such a risk exists in particular in situations where the price of the Reference Asset falls significantly (in the case of Closed-End Mini Future Long Warrants and/or Closed-End Turbo Certificates Long and/or Closed-End X-Mini Future Long Warrants and/or Closed-End X-Turbo Certificates Long) or rises significantly (in the case of Closed-End Mini Future Short Warrants and/or Closed-End Turbo Certificates Short and/or Closed-End X-Mini Future Short Warrants and/or Closed-End X-Turbo Certificates Short) between the close of trading in the Reference Asset on a trading day and the commencement of trading on the next following trading day.

The price of Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates usually also reflects the so-called gap risk. This is the risk of price jumps in the Reference Asset, for example between the close of trading on the previous day and the start of trading on the following trading day, that could trigger a Stop-Loss Event. The hedging costs of these gap risks can be subject to considerable fluctuations depending on the market situation and are influenced by the volatility of the Reference Asset, the spread between the price of the Reference Asset and the Strike and the time of day, among other factors. In the case of Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates the Holder bears no direct gap risk since the loss is limited to a total loss and there is no obligation to make additional payments. However, the gap risk is usually passed on to the purchasers of the Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates through the price settings in the secondary

market, i.e. the Holders bear the gap risk indirectly. Since the gap risks can change significantly over time, this leads to price risks in the product and this can have a negative impact on the pricing of the product in the secondary market, even if the price of the Reference Asset moves in the expected direction. A retrospective analysis may show that the Issuer assessed the gap risk as too high or too low.

16.2. Risk due to the leverage effect

The Holder bears the risk of strong price fluctuations of Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates.

Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates are particularly risky financial instruments whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates. Leverage effect means that a change in the price of the Reference Asset leads to a disproportionate change in the price of the Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates. The leverage effect results from the fact that the Holder has to invest a lower capital for an investment in Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates compared to a direct investment in the Reference Asset. As a rule, the following applies: If the price of the Reference Asset of a Closed-End Mini Future Long Warrant and/or Closed-End Turbo Certificate Long and/or Closed-End X-Mini Future Long Warrant and/or Closed-End X-Turbo Certificate Long declines, the price of the Closed-End Mini Future Long Warrant and/or Closed-End Turbo Certificate Long and/or Closed-End X-Mini Future Long Warrant and/or Closed-End X-Turbo Certificate Long declines disproportionately. If the price of the Reference Asset of a Closed-End Mini Future Short Warrant and/or Closed-End Turbo Certificate Short and/or Closed-End X-Mini Future Short Warrant and/or Closed-End X-Turbo Certificate Short rises, the price of the Closed-End Mini Future Short Warrant and/or Closed-End Turbo Certificate Short and/or Closed-End X-Mini Future Short Warrant and/or Closed-End X-Turbo Certificate Short falls disproportionately. The greater the leverage effect of the Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates, the higher the risk of losses. Due to the leverage effect the Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates involve disproportionate risks of loss compared to a direct investment in the Reference Asset (risk of total loss).

16.3. Specific risks applicable to Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates

In the case of Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates the period during which a Stop-Loss Event may occur is longer; therefore, the probability that a Stop-Loss Event occurs is increased.

In the case of Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates Holders should note that the Stop-Loss Observation Price relevant for determining the Stop-Loss Event will not only take into account prices of the Reference Asset (e.g. the DAX®), but also prices of an additional index, the x-index (e.g. the X-DAX®), as specified in the applicable Final Terms. The x-index is calculated outside of the usual trading hours of the Reference Asset (e.g. the X-DAX® is distributed from 8:00 am until DAX-opening and from 5:30 pm until 10:15 pm and the DAX® is usually calculated from 9:00 am until 5:30 pm). As a consequence the period during which a Stop-Loss Event may occur is longer than in the case of Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates which are not linked to an x-index. Due to the extension of the Stop-Loss Observation Period the probability

that a Stop-Loss Event occurs is increased. This risk is even further increased due to a higher probability of price spikes during the less liquid trading hours in case of most x-indices.

Holders of Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates should also note that the calculation of the Settlement Amount will not take into account the price of the respective x-index, but only the Final Value of the Reference Asset. This means that Holders will not benefit if the relevant price of the x-index is higher compared to the Final Value of the Reference Asset (in the case of Closed-End X-Mini Future Long Warrants and/or Closed-End X-Turbo Certificates Long) or if the relevant price of the x-index is lower compared to the Final Value of the Reference Asset (in the case of Closed-End X-Mini Future Short Warrants and/or Closed-End X-Turbo Certificates Short).

16.4. Risk related to the limited term of Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates

Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates are only exercisable on the Valuation Date and cannot be exercised by the Holder on any other day during the term.

The term of Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates is fixed and is, subject to the occurrence of a Stop-Loss Event, the period from the Issue Date until the Valuation Date. The Settlement Amount of the Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates is paid out by the Issuer on a specific date defined in the Final Terms. Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates have a "European Style", so they are only exercisable on the Valuation Date and cannot be exercised by the Holder on any other day during the term.

17. Product No. 17. Specific risk factors applicable to Capital Protected Certificates

17.1. Risk of loss

The Holder is exposed to the risk of loss, as the Minimum Amount may be less than the Nominal and/or Calculation Amount or, where applicable, the purchase price of the Securities. In addition, the Holder may lose all of its capital (including transaction costs) if the Issuer becomes insolvent.

Holders should note that Capital Protected Certificates are comparable with a direct investment in the Reference Asset (irrespective of dividend payments, but taking into account the Participation Factor, as described in the applicable Final Terms), whereby the Settlement Amount at the end of the term is at least equal to a Minimum Amount specified in the applicable Final Terms, irrespective of the performance of the Reference Asset. The Holder is exposed to the risk of loss, as the Minimum Amount may be less than the Nominal and/or Calculation Amount or, where applicable, the purchase price of the Securities. The risk of loss is equal to the difference between the capital invested to purchase the Securities (including transaction costs incurred) and the Minimum Amount.

In addition, the Holder is exposed to the issuer risks and may lose all of its capital (including transaction costs) if the Issuer becomes insolvent. For this reason among others, Capital Protected Certificates may be traded during their term at a price below the Nominal and/or Calculation Amount and/or the Minimum Amount. Holders may therefore not rely on being able to sell their purchased Securities at any time during the term at a price equal to or above the Minimum Amount.

18. Product No. 18. Specific risk factors applicable to Capped Capital Protected Certificates

18.1. Risk of loss

The Holder is exposed to the risk of loss, as the Minimum Amount may be less than the Nominal and/or Calculation Amount or, where applicable, the purchase price of the Securities. In addition, the Holder may lose all of its capital (including transaction costs) if the Issuer becomes insolvent.

Holders should note that Capped Capital Protected Certificates are comparable with a direct investment in the Reference Asset (irrespective of dividend payments, but taking into account the Participation Factor, as described in the applicable Final Terms), whereby the Settlement Amount at the end of the term is at least equal to a Minimum Amount specified in the applicable Final Terms, irrespective of the performance of the Reference Asset. The Holder is exposed to the risk of loss, as the Minimum Amount may be less than the Nominal and/or Calculation Amount or, where applicable, the purchase price of the Securities. The risk of loss is equal to the difference between the capital invested to purchase the Securities (including transaction costs incurred) and the Minimum Amount.

In addition, the Holder is exposed to the issuer risks and may lose all of its capital (including transaction costs) if the Issuer becomes insolvent. For this reason among others, Capped Capital Protected Certificates may be traded during their term at a price below the Nominal and/or Calculation Amount and/or the Minimum Amount. Holders may therefore not rely on being able to sell their purchased Securities at any time during the term at a price equal to or above the Minimum Amount.

18.2. Settlement Amount is limited to Maximum Amount

The Settlement Amount will not exceed the Maximum Amount in any case with the result that the possible yield on the Securities has an upper limit.

The Holder should consider that the Settlement Amount will not exceed the Maximum Amount in any case with the result that the possible yield on the Securities has an upper limit.

19. Product No. 19. Specific risk factors applicable to Participation Certificates

19.1. Risk of total loss

The Holder has a risk of significant losses. The lower the level of the Reference Asset on the Valuation Date, the lower the Settlement Amount. A total loss occurs if the Reference Asset is worthless on the Valuation Date.

Holders should note that Participation Certificates are comparable with a direct investment in the Reference Asset (irrespective of dividend payments and management or quanto fees). Therefore, the Holder is exposed to a risk of loss comparable to the direct investment and the Holder has a risk of significant losses up to a total loss with regard to the invested capital. The lower the Reference Asset on the Valuation Date, the lower the Settlement Amount. A total loss occurs if the Reference Asset is worthless on the Valuation Date.

19.2. Risk factors related to Participation Certificates with Management Fee or Quanto Fee

The consideration of a Management Fee or Quanto Fee not only reduces the Settlement Amount payable by the Issuer, but also reduces the value of the Securities on the secondary market.

To the extent provided in the applicable Final Terms, a certain Management Fee or Quanto Fee is deducted from the Settlement Amount payable.

The Management Fee compensates the Issuer or entities associated with the Issuer for costs incurred by it (in the absence of foreign exchange hedging) in entering into transactions related to the Reference Asset on the capital markets, which serve to hedge the fulfilment risks associated with the issuance of the Securities ("**Hedging Transactions**"). The Quanto Fee is charged in order to compensate the Issuer for hedging costs in hedging foreign exchange risk.

It should be noted that a Management Fee or Quanto Fee not only reduces the Settlement Amount payable by the Issuer, whereby the Final Value and/or the Performance of the

Reference Asset is multiplied by a Management Factor or Fee Factor (consisting of the Management Fee and Quanto Fee) calculated pursuant to the Issue Specific Conditions, but also reduces the value of the Securities on the secondary market during their term. Such a Management Fee or Quanto Fee is incorporated in the calculation of the bid and ask prices for Securities on the secondary market according to the portion of the term of the Securities that has already expired.

The Issuer is entitled to adjust the level of the Management Fee during the term of the Securities. In the case of a Management Fee greater than zero (0), the effect of the Management Fee will be greater, the longer the holding period in which it applies to the Securities.

Exchange rate hedging costs may vary considerably according to market conditions and may have either a significant negative or a significant positive value. This will be reflected in the current Quanto Fee. Should the exchange rate hedging costs be significantly positive, the Quanto Fee will increase and lead to a lower Settlement Amount. Should the exchange rate hedging costs be significantly negative, the Quanto Fee will be smaller and the Settlement Amount will be higher. As the term increases, it is relatively unlikely that a negative Quanto Fee will offset the Management Fee and that the Fee Factor will have a positive effect for the Holder. The level of the Quanto Fee is set by the Issuer on the basis of the current market parameters. Five factors in particular are influential in determining these costs: the interest rate of the Reference Currency, the interest rate of the Specified Currency that is being hedged, the volatility of the Reference Asset, the volatility of the exchange rate between the Reference Currency and the Specified Currency, and the correlation between the price of the Reference Asset and the performance of the exchange rate. The costs may be increased as a result of an increasing interest rate in the Reference Currency, a falling interest rate in the Specified Currency, as well as increasing volatilities and an increasing correlation. This may lead to a higher Quanto Fee and consequently to a lower investment yield, all other conditions remaining the same.

19.3. Risk related to the limited term of Participation Certificates

There is a period of time between the exercise notice of the Holder and the determination of the Settlement Amount during which the price of the Reference Asset on the basis of which the Settlement Amount is determined may develop negatively.

The term of Participation Certificates is fixed and is the period from the Issue Date until the Valuation Date. The Settlement Amount of the Participation Certificates is paid out by the Issuer on a specific date defined in the Final Terms. If the Participation Certificates have an "European Style" they are only exercisable on the Valuation Date and cannot be exercised by the Holder on any other day during the term. If the Participation Certificates have an "American Style", the Participation Certificates may be exercised by the Holders during their term. However, all Participation Certificates which have not been exercised during their term are exercised automatically at the end of the term.

In the case of an exercise of Participation Certificates by the Holder, there is a time span between the time at which the Holder declares the exercise of the Participation Certificates and the time when the Settlement Amount is determined as a result of the exercise. Within this time span, the price of the Reference Asset on the basis of which the Settlement Amount is determined may develop to the detriment of the Holder and result in the Settlement Amount being lower than if the Settlement Amount had been determined at the time of the declaration of the exercise and may result in such Settlement Amount being zero (0).

C. RISK FACTORS IN RELATION TO THE TYPE OF REFERENCE ASSET

In this risk category the specific and material risks in connection with the Reference Asset are described. The risks in this category are classified according to their materiality based on the assessment of the Issuer. The most material risks are mentioned first. The specific and material risks are described for each asset class in a separate sub-category.

The Securities may be linked to a share or a depositary receipt representing a share, an equity index or an exchange traded fund (ETF), a commodity, a futures contract or a foreign exchange rate as reference asset. The relevant Reference Asset for a certain Securities will be specified in the applicable Final Terms.

A feature common to all of the Securities presented in the Base Prospectus is that the level of the Settlement Amount is linked to the performance of the relevant Reference Asset. The performance of the Reference Asset may be subject to fluctuations over time. Depending on the structure of the Securities, a rise or a fall in the Reference Asset may be unfavourable for the Holder. There is no guarantee that the Reference Asset will move in a direction that is favourable for the respective Holder and corresponds to the Holder's expectations.

The risks related to another category of asset class can also be relevant for the Reference Asset, if indirect investments are made (e.g. for an index whose index components are shares the same risks associated with an investment in shares can be realized).

1. Risks associated with Shares, depositary receipts representing a share or exchange traded funds (ETF) as Reference Asset

The specific and material risks associated with shares, depositary receipts representing a share or exchange traded funds (ETF) as Reference Asset are described in this sub-category. The risks in this sub-category are classified according to their materiality based on the assessment of the Issuer. The most material risks are mentioned first.

1.1. Risks in connection with the performance of the price of the Reference Asset

An adverse development of the macroeconomic factors may have a negative impact on the performance of the Reference Asset and accordingly may adversely affect the value of the Securities and the Settlement Amount.

The performance of Shares, depositary receipts representing a share or exchange traded funds (ETF) is dependent upon macroeconomic factors, such as interest and price levels on the capital markets, currency developments and political factors, and company-specific factors such as earnings position, market position, risk situation, market liquidity for the Shares, shareholder structure and dividend policy, i.e. an adverse development of the macroeconomic factors may have a negative impact on the performance of the Reference Asset and accordingly may adversely affect the value of the Securities and the Settlement Amount.

Holders of Securities linked to a Share will not participate in dividends or other distributions paid on such Share. Therefore, the return on such Securities will not reflect the return a Holder of Securities would have realised had he or she actually owned such Shares and received the dividends on them.

Share Linked Securities do not represent a claim against or an investment in any Share Issuer and the investor will not have any right of recourse under the Securities to any such company or the Shares. The Securities are not in any way sponsored, endorsed or promoted by any Share Issuer and such companies have no obligation to take into account the consequences of their actions on Holders of Securities. Accordingly, the issuer of a Share may take any actions in respect of such Share without regard to the investors interests as a Holder of Securities, and any of these actions could adversely affect the market value of the Securities and the return of the Securities.

1.2. Risks in connection with determinations made by the Calculation Agent

Determinations made by the Calculation Agent in respect of Potential Adjustment Events, Extraordinary Events, Additional Disruption Events and a Successor Index Event (ETF) (relating to shares of Exchange Traded Funds) may have an adverse effect on the value of the Securities.

Upon determining that a Potential Adjustment Event, Extraordinary Event or Additional Disruption Event has occurred in relation to an underlying Share or Share Issuer, or a Successor Index Event (ETF) has occurred in relation to a share of an Exchange Traded Fund,

the Calculation Agent has discretionary authority under the terms and conditions of the Securities to make certain determinations to account for such event including to (i) make adjustments to the terms of the Securities and/or (ii) (in the case of an Extraordinary Event, an Additional Disruption Event or a Successor Index Event (ETF)) cause early redemption of the Securities, any of which determinations may have an adverse effect on the value of the Securities.

- Potential Adjustment Events include (A) a sub-division, consolidation or re-classification of the Shares, (B) an extraordinary dividend, (C) a call of the Shares that are not fully paid, (D) a repurchase by the issuer, or an affiliate thereof, of the Shares, (E) a separation of rights from the Shares or (F) any event having a dilutive or concentrative effect on the value of the Shares.
- Extraordinary Events include (A) a delisting of the Shares on an exchange, (B) an insolvency (where all the Shares of the Share Issuer are transferred to a trustee, liquidator or similar official or may not be legally transferred) or bankruptcy of the issuer of the Shares, (C) a merger event entailing the consolidation of the Shares with those of another entity, (D) a nationalisation of the issuer of the Shares or transfer of the Shares to a governmental entity, (E) a tender offer or takeover offer that results in transfer of the Shares to another entity, or (F) (in the case of shares of Exchange Traded Funds and if specified to be applicable in the relevant Issue Specific Conditions) a failure to publish the net asset value for more than a short period and/or which is non-temporary in nature and has a material effect on the Securities, or a permanent cancellation or material modification of the index underlying the Exchange Traded Fund.
- Additional Disruption Events include (A) a change in applicable law since the Issue Date that makes it illegal for any of the Issuer and/or the Hedging Entity and/or any of their respective affiliates to hold, acquire or dispose of the Shares or (if specified to be applicable in the relevant Issue Specific Conditions) more expensive for the Issuer to hedge its obligations under the relevant Securities or (B) if specified to be applicable in the relevant Issue Specific Conditions, an insolvency or bankruptcy filing by or on behalf of the underlying Share Issuer.
- Successor Index Event (ETF) is an event whereby the index underlying the Exchange Traded Fund is either calculated and announced by a successor sponsor or replaced by a successor index using the same or substantially similar calculation formula and method as the index.

It will generally not be possible to anticipate the occurrence of a Potential Adjustment Event, Extraordinary Event, Additional Disruption Event or a Successor Index Event (ETF), and the occurrence of any of these events could have an adverse effect on the value of and return on the Securities.

1.3. Additional risks associated with American Depositary Receipts and Global Depositary Receipts as Reference Asset

Payments under Securities linked to Depositary Receipts are not identical to payments that the Holder would have received if he had invested directly in the share underlying the Depositary Receipts. An investment in a Depositary Receipt involves additional risks compared to an investment directly in the share underlying the Depositary Receipt.

An investment in Securities linked to Depositary Receipts (comprising American Depositary Receipts or Global Depositary Receipts) entails significant risks in addition to those associated with a direct investment in the shares underlying the Depositary Receipt.

- *Exposure to risk that redemption amounts do not reflect direct investment in the shares underlying the Depositary Receipts:* There are important differences between the rights of holders of Depositary Receipts and the rights of holders of the stock of the Underlying Share Issuer represented by such Depositary Receipts. A Depositary Receipt is a security that represents capital stock of the relevant Underlying Share Issuer. The relevant deposit agreement for the Depositary Receipt sets forth the rights and responsibilities of the

Depository (being the issuer of the Depository Receipt), the Underlying Share Issuer and holders of the Depository Receipt which may be different from the rights of holders of the Underlying Shares. For example, the Underlying Share Issuer may make distributions in respect of its Underlying Shares that are not passed on to the holders of its Depository Receipts. Any such differences between the rights of holders of the Depository Receipts and holders of the Underlying Shares of the Underlying Share Issuer may be significant and may materially and adversely affect the value of the relevant Securities.

- *Exposure to the risk of non-recognition of beneficial ownership of the Underlying Shares and therefore generally do not include dividends:* The legal owner of the Underlying Shares is the custodian bank which at the same time is the issuing agent of the Depository Receipts. Depending on the jurisdiction under which the Depository Receipts have been issued and the jurisdiction to which the custodian agreement is subject, it is possible that the corresponding jurisdiction would not recognise the purchaser of the Depository Receipts as the actual beneficial owner of the Underlying Shares. Particularly in the event that the custodian becomes insolvent or that enforcement measures are taken against the custodian following a default by it, it is possible that an order restricting free disposition could be issued with respect to the Underlying Shares or that such shares are realised within the framework of an enforcement measure against the custodian. If this is the case, the holder of the Depository Receipt loses the rights under the Underlying Shares and the Securities would become worthless.
- *Potential exposure to risks of emerging markets:* Depository Receipts often represent shares of Underlying Share Issuers based in emerging market jurisdictions (see also Section D.4. of the Risk Factors below).
- *Distributions on the Underlying Shares may not be passed on to holders of its Depository Receipts:* An issuer of the Underlying Shares may make distributions in respect of its shares that are not passed on to holders of its Depository Receipts.
- *Adjustment to the terms and conditions or replacement of the Reference Asset following certain corporate events in relation to the Underlying Shares may materially and adversely affect the value of the Securities:* Following certain corporate events specified in the terms and conditions of the relevant Securities relating to the Underlying Shares or the relevant issuer of such Underlying Shares, such as a merger where the relevant company is not the surviving entity, the amount Holders of Securities will receive, if any, at maturity of such Securities may be adjusted by the Calculation Agent or the affected Underlying Shares and Depository Receipts may be replaced by another Reference Asset. The occurrence of such corporate events and the consequential amendments may materially and adversely affect the value of the Securities.
- *Exposure to changes in the rate of exchange between the currency of the Depository Receipt and the Underlying Share:* Where the currency of the Depository Receipt is different from that of the underlying Share, Holders of Securities linked to such Depository Receipt may be exposed not only to the performance of the Depository Receipt but also to the performance of the relevant foreign currency of the Underlying Share, which cannot be predicted (see also Section D.1. of the Risk Factors below).

1.4. Additional risks associated with shares of Exchange Traded Funds as Reference Asset

Payments under Securities linked to Exchange Traded Funds are not identical to payments that the Holder would have received if he had invested directly in the asset underlying the Exchange Traded Fund. An investment in an Exchange Traded Fund involves additional risks compared to an investment directly in the asset underlying the Exchange Traded Fund.

An investment in Securities linked to Exchange Traded Funds entails significant risks in addition to those associated with a direct investment in the assets underlying the Exchange Traded Fund.

- *Factors affecting the performance of shares of Exchange Traded Funds may adversely affect the value of the Securities:* An Exchange Traded Fund may seek to track the

performance of an index, a basket of assets or specific single assets (each, a "**fund underlying benchmark**"). The performance of an Exchange Traded Fund may be dependent upon macroeconomic factors, such as interest and price levels on the capital markets, currency developments and political factors, and company-specific factors such as earnings position, market position, risk situation, market liquidity of the shares comprising the fund underlying benchmark, or the shareholder structure and dividend policy relating to the issuers of underlying shares of the fund underlying benchmark. As these factors are beyond the control of the management company, sponsor or trustee of the Exchange Traded Fund, there can be no assurance that the management company, sponsor or trustee will achieve the investment objectives of the Exchange Traded Fund.

The net asset value of a share of an Exchange Traded Fund may be calculated from the prices of index underlying shares relating to the fund underlying benchmark, without taking into account the value of dividends paid on the shares of the fund underlying shares. Therefore, an investment in the Securities which are linked to a share of an Exchange Traded Fund is not the same as a direct investment in the fund underlying benchmark and may therefore result in a lower yield than a direct investment in such index or shares.

- *No claim against the management company, sponsor or trustee of an Exchange Traded Fund or recourse to the shares of an Exchange Traded Fund:* Securities linked to shares of an Exchange Traded Fund do not represent a claim against or an investment in any management company, sponsor or trustee of the Exchange Traded Fund and the investor will not have any right of recourse under the Securities to any such company, sponsor or trustee or the shares of the Exchange Traded Fund. The Securities are not in any way sponsored, endorsed or promoted by any management company, sponsor or trustee of the Exchange Traded Fund and such entities have no obligation to take into account the consequences of their actions on Holders of Securities. Accordingly, the management company, sponsor or trustee of an Exchange Traded Fund may take any actions in respect of shares of the Exchange Traded Fund without regard to the investors interests as a Holder of Securities, and any of these actions could adversely affect the market value of the Securities.
- *Conflicts of interest in relation to the Exchange Traded Fund may adversely affect the value of the Securities:* In the operation of an Exchange Traded Fund certain conflicts of interest may arise that can have negative impacts on the performance of such fund. For persons involved in the fund management or advisory activities in relation to the Exchange Traded Fund conflicts of interest can arise from retrocessions or other inducements. Conflicts of interest may also arise where J.P. Morgan itself is involved in the management of the Exchange Traded Fund and at the same time affiliates act as Issuer of and/or Calculation Agent for the Securities. In addition, persons involved in the fund management or advisory activities to the Exchange Traded Fund or their employees may provide services such as management, trading or advisory services for third parties at the same time. Although they will usually aim to distribute the investment opportunities equally to their clients, the fund portfolio and portfolios of other clients may differ even if their investment objectives are similar. Any of these persons might be induced to allocate lucrative assets first to a portfolio involving the highest fees. Persons providing management, trading or advisory services to the Exchange Traded Fund may make recommendations or enter into transactions which are different to those of the Exchange Traded Fund or may even compete with the Exchange Traded Fund. Any such behaviour by persons involved in the fund management or advisory activities may adversely affect the performance of the Exchange Traded Fund, which may in turn negatively affect the value of Securities linked to such fund.
- *The performance of an Exchange Traded Fund may not correlate with the performance of its fund underlying benchmark and, particularly during periods of market volatility, the share price performance of an Exchange Traded Fund may not correlate with its net asset value:* An Exchange Traded Fund may not fully replicate its fund underlying benchmark and may hold securities different from those included in its fund underlying benchmark. Also, the performance of an Exchange Traded Fund will in most cases reflect additional transaction costs and/or fees that are not included in the calculation of

the level of its fund underlying benchmark. Further, corporate actions with respect to the equity securities underlying an Exchange Traded Fund (such as mergers and spin-offs) may lead to variance between the performance of such Exchange Traded Fund and that of its fund underlying benchmark. Any or all of these factors may lead to a lack of correlation between the performance of an Exchange Traded Fund and that of its fund underlying index.

Because the shares of an Exchange Traded Fund are traded on an exchange and are therefore subject to market supply and investor demand, the share price of an Exchange Traded Fund may differ from the net asset value of a share of the Exchange Traded Fund. The share price performance of an Exchange Traded Fund and its net asset value may also vary due to market volatility. For example, during periods of market volatility, the liquidity of the shares of an Exchange Traded Fund may be adversely affected and market participants may be unable to accurately calculate the net asset value per share of the Exchange Traded Fund. Market volatility may also impair the ability of market participants to issue new shares and redeem existing shares in the Exchange Traded Fund. Further, market volatility may have a material adverse effect on the prices at which market participants are willing to buy and sell shares of the Exchange Traded Fund. As a result, in circumstances of market volatility, the share price of an Exchange Traded Fund may vary substantially from the net asset value per share of the Exchange Traded Fund.

For all of the foregoing reasons, the performance of an Exchange Traded Fund may not correlate with the performance of its fund underlying benchmark, and the share price performance of the Exchange Traded Fund may vary substantially from its net asset value. This lack of correlation could have a material adverse effect on the return on and value of the investors Securities. The investor may receive a lower return on his Securities than if he had invested directly in the shares of the Exchange Traded Fund or in another product linked to the fund underlying benchmark.

- *An Exchange Traded Fund may involve varying degrees of risk depending on the tracking techniques employed by the management company:* For the purpose of tracking the performance of a fund underlying benchmark, the management company may use full replication (i.e. investing directly in all components comprised in the fund underlying benchmark), synthetic replication (such as using a swap) or other tracking techniques (such as sampling). An Exchange Traded Fund may involve varying degrees of risk depending on the tracking techniques employed by the management company.

When full replication or synthetic replication techniques are used, an Exchange Traded Fund is exposed to an unlimited risk of the negative performance of the fund underlying benchmark. In addition, such Exchange Traded Fund may not be able to acquire all components of its fund underlying benchmark or sell them at reasonable prices. This can affect the Exchange Traded Fund's ability to replicate the fund underlying benchmark and may have a negative effect on the Exchange Traded Fund's overall performance.

Exchange Traded Funds using swaps for synthetic replication of the fund underlying benchmark may be exposed to the risk of a default of their swap counterparties. See the section below (*Synthetic Exchange Traded Funds may involve additional risks due to the use of derivative instruments*).

Exchange Traded Funds replicating the fund underlying benchmark using sampling techniques may create portfolios of assets which are not components of the fund underlying benchmark at all or comprise only some components of the fund underlying benchmark. Therefore, the risk profile of such Exchange Traded Funds is not necessarily consistent with the risk profile of their fund underlying benchmark.

The value of Securities linked to an Exchange Traded Fund may in turn be adversely affected if the performance of such Exchange Traded Fund is affected by the risks associated with the tracking techniques employed by the management company.

- *Synthetic Exchange Traded Funds may involve additional risks due to the use of derivative instruments:* Typically, synthetic Exchange Traded Funds follow a strategy of

investing in swaps and derivative instruments with an aim to replicate the performance of a fund underlying benchmark. Investors investing in Securities linked to synthetic Exchange Traded Funds should consider the risks inherent to the use of swaps and derivative instruments:

- (i) *Counterparty risk:* In addition to exposure to the Issuer's credit risk and the credit risk in respect of the underlying Exchange Traded Fund, investors are also exposed to the credit risk of counterparties which have issued the swaps or derivative instruments that underlie synthetic Exchange Traded Funds ("**Derivatives Issuers**"). In addition, investors should be aware that as Derivatives Issuers are predominantly international financial institutions there is a risk that the failure of one Derivatives Issuer could have a "knock-on" effect and lead to the insolvency of other Derivatives Issuers. Although Derivatives Issuers may have collateralised their obligations under the relevant derivative instruments, there is a residual risk that the market value of the collateral posted could have fallen substantially if the synthetic Exchange Traded Funds seeks to realise the collateral and could be worth less than the outstanding obligations under the relevant derivative instruments. In such case, the Holders may suffer loss of their investment in the Securities for the amount of the shortfall between the value of the collateral and the amounts due under the Securities linked to such synthetic Exchange Traded Funds.
- (ii) *Management risk:* Synthetic Exchange Traded Funds are managed in a "passive" manner. This means that investments are made in swap and derivative instruments relating to underlying indices or benchmarks without the possibility to acquire or dispose of assets on an active basis in accordance with economic, financial and market analysis and investment judgements made by the fund's investment adviser. Accordingly, there is a risk that the passive investment strategy of such fund's investment adviser may not produce the intended results. For instance, the synthetic Exchange Traded Fund may not be able to reduce the downside of poorly performing investments through timely disposition of assets in the portfolio. This may have an adverse effect on the value of synthetic Exchange Traded Fund and therefore on the Securities linked to such synthetic Exchange Traded Funds.
- (iii) *Liquidity risk:* There is a risk that synthetic Exchange Traded Funds are not liquid or not as liquid as other Exchange Traded Funds. This is because swaps and derivative instruments may not be traded on the secondary market. As a consequence of the limited liquidity wider bid-offer spreads may apply to such derivative instruments and this may result in increased operating costs and potential losses for the synthetic Exchange Traded Funds and accordingly the value of the Securities linked to such synthetic Exchange Traded Funds will be adversely affected.
- (iv) *Tracking error:* Although synthetic Exchange Traded Funds track the fund underlying benchmark, there is a risk that a discrepancy occurs between the value of the synthetic Exchange Traded Fund and the value of the fund underlying benchmark. This could be the result of a failure of the tracking strategy of the synthetic Exchange Traded Fund, currency differences between the Exchange Traded Fund and/or the fund underlying benchmark, and/or fees and expenses charged in connection with the synthetic Exchange Traded Fund.
- (v) *Trading at a discount or a premium:* There is a risk that synthetic Exchange Traded Funds are traded at a premium or discount of their net asset value. This may occur if the fund underlying benchmark is subject to restrictions or limitation for instance a limitation on foreign investment imposed in the jurisdiction to which the fund underlying benchmark relates. Investors that acquire Securities linked to a synthetic Exchange Traded Fund at a premium are subject to the risk that they may not be able to recover the premium in the event of termination of underlying Exchange Traded Funds or the Securities.

- *An Exchange Traded Fund may overly concentrate on a certain class of underlying assets or assets located in specific countries:* An Exchange Traded Fund may in accordance with its fund rules concentrate its assets with a focus on certain countries, regions, asset classes or industry sectors while replicating the fund underlying benchmark. This can result in the Exchange Traded Fund being subject to a higher volatility and further risks as compared to funds with a broader diversification as regards countries, regions or industry sectors. Such risks may include the risk of government interventions resulting in a total or partial loss of assets or of the ability to acquire or sell them at the management company's discretion. Such markets may not be regulated in a manner typically expected from more developed markets. If an Exchange Traded Fund concentrates its assets in emerging markets, this may involve a higher degree of risk as exchanges and markets in these emerging market countries may be subject to stronger volatility than exchanges and markets in more developed countries. Political changes, foreign currency exchange restrictions, foreign exchange controls, taxes, restrictions on foreign investments and repatriation of invested capital can have a negative impact on the investment result and therefore the value of shares of the Exchange Traded Fund.
- *Exchange Traded Funds are subject to tax and currency risks, which may indirectly affect the value of Securities linked to such Exchange Traded Funds:* The tax status of Exchange Traded Funds in those jurisdictions in which they conduct their business and/or any change in taxation rules or treatment in such jurisdictions could affect the value of the assets of such Exchange Traded Funds or the ability of such Exchange Traded Funds to achieve their investment objectives. Consequently, this could adversely affect the value of Securities linked to such Exchange Traded Funds.

In addition, remittance of income and capital gains generated by underlying investments of Exchange Traded Funds in certain countries may be dependent on there being liquidity in the relevant local currency and the absence of foreign exchange controls which inhibit or prevent the repatriation of such gains. In any such circumstances, the value of the notional shares of Exchange Traded Funds may be adversely affected and as a result the relevant Exchange Traded Funds and the value of the Securities linked to such Exchange Traded Funds may be adversely affected.

2. Risks associated with Indices as Reference Asset

The specific and material risks associated with Indices as Reference Asset are described in this sub-category. The risks in this sub-category are classified according to their materiality based on the assessment of the Issuer. The most material risks are mentioned first.

2.1. Risks in connection with the performance of the price of the Reference Asset

An adverse price development of the components of the Index may adversely affect the price development of the Index and, accordingly, the value of the Securities and/or the Settlement Amount and/or any other payments or other deliveries under the Securities.

Indices are comprised of a synthetic portfolio of shares or other assets, and as such, the performance of an Index is dependent upon the macroeconomic factors relating to the shares or other components that comprise such Index, which may include interest and price levels on the capital markets, currency developments, political factors and (in the case of shares) company-specific factors such as earnings position, market position, risk situation, market liquidity for the Shares, shareholder structure and dividend policy. During the term of the Securities, the market price of the Securities may deviate from the development of the price of the Index or of the shares or other components that comprise such Index, since other factors, for example the correlations, volatilities and interest rate level, may influence the development of the price of the Securities. In the case of total return indices, the reinvestment of dividend payments relating to the index components may also influence the development of the price of the Securities.

The return payable on Securities that reference Indices may not be the same as the return the investor would realise if he actually owned the relevant assets comprising the components of the Index. For example, if the components of the Indices are shares, Holders of Securities will

not receive any dividends paid on those shares and will not participate in the return on those dividends, save where the relevant Index takes such dividends into account for purposes of calculating the relevant level. Similarly, Holders of Securities will not have any voting rights in the underlying shares or any other assets which may comprise the components of the relevant Index. Accordingly, the investor may receive a lower return on Securities linked to Indices than he would have received if he had invested in the components of such Indices directly or in another product.

2.2. Risks in relation to dividends

The Holder does not generate return of dividends in respect of most Securities linked to equity indices.

Price Return and Total Return Indices

The rules governing the composition and calculation of the relevant Index may stipulate that dividends paid on its components are included in the calculation of the index level (a "total return" index) or are not included in the calculation of the index level (a "price return" index).

Where Securities are linked to a "price return" index, Holders will not participate in dividends paid on the components comprising the Index. As a result, Holders of Securities linked to such Index would lose the benefit of any dividends paid by the components of the Index and such Securities may not perform as well as a position where such Holder had invested directly in such components or where they invested in a "total return" version of the Index, or in another product.

In the case of Securities linked to a "total return" index, net dividends (in the case of a "net total return" index) or gross dividends (in the case of a "gross total return" index) paid on its components are included in the calculation of the index level. In the case of a "net total return" index, dividends paid on its components may not be fully reinvested in the Index and accordingly, Holders may receive a lower return on Securities linked to such Index than they would have received if they had invested in the components of such Index directly or in another product.

2.3. Risks in relation to a change in the composition or discontinuance of an Index

A change in the composition or discontinuance of an Index could adversely affect the market value of the Securities.

The sponsor of any Index may add, delete or substitute the components of such Index or make other methodological changes that could change the level of one or more components. The changing of components of any Index may affect the level of such Index as a newly added component may perform significantly worse or better than the component it replaces, which in turn may affect the payments made by the Issuer to the investor under the Securities. The sponsor of any such Index may also alter, discontinue or suspend calculation or dissemination of such Index. The sponsor of an Index will have no involvement in the offer and sale of the Securities and will have no obligation to any Holder of Securities. The sponsor of an Index may take any actions in respect of such Index without regard to the interests of the Holders of Securities, and any of these actions could adversely affect the return on the Securities.

2.4. Risks in relation to Index Modification, Index Cancellation, Index Disruption and Correction

An Index Modification, Index Cancellation, Index Disruption and Correction of Index levels could adversely affect the market value of the Securities.

The Calculation Agent has discretionary authority under the terms and conditions of the Securities to make certain determinations and adjustments following an Index Modification (broadly, changes in the methodology of the Index), Index Cancellation (permanent cancellation of the Index) and Index Disruption (failure to calculate and publish the level of the Index). The Calculation Agent may determine that the consequence of any such event is to make adjustments to the Securities, or to replace such Index with another or to cause early

redemption of the Securities. The Calculation Agent may (subject to the terms and conditions of the relevant Securities) also amend the relevant Index level due to corrections in the level reported by the Index Sponsor. Any such determination may have a negative adverse effect on the return of the Securities.

2.5. Risks in relation to determinations made by the Calculation Agent

Determinations made by the Calculation Agent in respect of Additional Disruption Events may have an adverse effect on the value of the Securities.

Upon determining that an Additional Disruption Event has occurred in relation to an underlying Share or Share Issuer, the Calculation Agent has discretionary authority under the terms and conditions of the Securities to make certain determinations to account for such event including to (i) make adjustments to the terms of the Securities and/or (ii) cause early redemption of the Securities, any of which determinations may have an adverse effect on the value of the Securities.

Additional Disruption Events include a change in applicable law since the Issue Date that makes it illegal for any of the Issuer and/or the Hedging Entity and/or any of their respective affiliates to hold, acquire or dispose of the Shares or (if specified to be applicable in the relevant Issue Specific Conditions) more expensive for the Issuer to hedge its obligations under the relevant Securities.

2.6. Particular risks associated with exchange traded futures and options contracts on underlying indices

Where the Securities reference exchange traded futures and options contracts linked to an Index, the Settlement Amount is determined either on the basis of the index-linked derivative contract or on the basis of the underlying index. An adverse performance of the relevant index-linked derivatives contracts or the underlying index may adversely affect the value of the Securities and/or the Settlement Amount and/or any other payments or deliveries under the Securities.

Where the Securities reference exchange traded futures and options contracts linked to an Index ("index-linked derivatives contracts"), the Holders of Securities are exposed to the performance of the index-linked derivatives contract in respect of such Index. The Settlement Amount payable on Securities that reference index-linked derivatives contract on an Index is exposed to the performance of the index-linked derivatives contract as well as the underlying Index, and in particular in the case of futures contracts, to the level of the underlying Index if the final official settlement price or the daily settlement price of the futures contract is not published.

An options contract linked to an Index is one where the buyer of the options contract purchases the right to a potential payment from the seller of the option, depending on the level of the Index. The sum that a buyer of an options contract pays to purchase the options contract is usually known as the premium, and options contracts will usually be call options, where the buyer will receive payment under the options contract if the level of the Index on one or more specified dates is above a specified level (known as the strike), or put options, where the buyer will receive payment under the options contract if the level of the Index on one or more specified dates is below the strike.

A cash settled futures contract linked to an Index is one where, depending on the level of the Index, the buyer of the futures contract either has a right to receive a payment (known as the settlement amount) from the seller of the futures contract or an obligation to make a payment to the seller of the futures contract. If the level of the Index on one or more specified dates (the "settlement price") is greater than a specified level in the contract (the "forward price"), then the seller shall pay to the buyer the difference between the settlement price and the forward price. If the settlement price is less than the forward price, the buyer of the futures contract will make a payment to the seller of the futures contract equal to such difference.

Index-linked derivatives contracts may be traded on the relevant futures or options exchanges and may be standardised with respect to the number of futures or options covered by one

index-linked derivatives contract, the term of each index-linked derivatives contract, the dates on which various index-linked derivatives contracts expire and the manner in which the settlement amount is calculated.

There may be a correlation between the day-to-day change in the level of an Index and the price at which an index-linked derivatives contract trades on the relevant futures or options exchange. However, the expectations of dealers in index-linked derivatives contracts of the level of the Index on the date(s) on which the settlement amount of an index-linked derivatives contract is determined may also have an impact on the price of an index-linked derivatives contract on the Index. For example, if the expectation of dealers in options contracts is that the level of the Index will be lower on a future date when the settlement amount of the options contract is to be determined than the current level of the Index, this may result in the price of the options contract falling (in the case of a call option) or rising (in the case of a put option) even where the current level of the Index is rising. Moreover, because the settlement amount of many options contracts is a multiple of the difference between the level of the Index on a future date and the strike, a relatively small change in the level of an Index may result in a proportionately much larger change in the price of the options contract.

If the expectation of dealers in futures contracts is that the settlement price of the Index on the date(s) on which the settlement amount of the futures contract is determined will be lower than the forward price of the Index specified in the contract, this may result in the price of the futures contract falling (in the case of buyers of the futures contract) or rising (in the case of sellers of the futures contract) even where the current level of the Index is rising. Moreover, because the settlement amount of many futures contracts is a multiple of the difference between the settlement price and the forward price, a relatively small change in the level of an Index may result in a proportionately much larger change in the price of the futures contract.

3. Risks associated with Commodities as Reference Asset

The specific and material risks associated with Commodities as Reference Asset are described in this sub-category. The risks in this sub-category are classified according to their materiality based on the assessment of the Issuer. The most material risks are mentioned first.

3.1. Risks in connection with the price development of Commodities

Factors affecting the performance of Commodities may adversely affect the value of the Securities; Commodity prices may be more volatile than other asset classes.

Trading in commodities is speculative and may be extremely volatile. Commodity prices are affected by a variety of factors that are unpredictable including, for example, changes in supply and demand relationships, weather patterns and extreme weather conditions, environmental disasters, governmental programmes and policies, national and international political, military, terrorist and economic events, fiscal, monetary and exchange control programmes and changes in interest and exchange rates. Commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, the participation of speculators and government regulation and intervention. These circumstances could also adversely affect prices of the relevant commodity. Therefore, commodity prices may be more volatile than other asset classes and investments in commodities may be riskier than other investments.

Commodities comprise both (i) "physical" commodities, which need to be stored and transported, and which are generally traded at a "spot" price, and (ii) commodity contracts, which are agreements either to (a) buy or sell a set amount of an underlying physical commodity at a predetermined price and delivery period, or to (b) make and receive a cash payment based on changes in the price of the underlying physical commodity.

Commodity contracts may be traded on regulated specialised futures exchanges (such as futures contracts). Commodity contracts may also be traded directly between market participants "over-the-counter" on trading facilities that are subject to lesser degrees of regulation or, in some cases, no substantive regulation. Accordingly, trading in such "over-the-counter" contracts may not be subject to the same provisions as, and the protections afforded

to, contracts traded on regulated specialised futures exchanges, and there may therefore be additional risks related to the liquidity and price histories of the relevant contracts.

3.2. Risks in relation Securities linked to commodity futures contracts

Commodity Linked Securities which are linked to commodity futures contracts may provide a different return than Commodity Linked Securities linked to the relevant physical commodity and will have certain other risks.

The price of a futures contract on a commodity will generally be at a premium or at a discount to the spot price of the underlying commodity. This discrepancy is due to such factors as (i) the need to adjust the spot price due to related expenses (e.g., warehousing, transport and insurance costs) and (ii) different methods being used to evaluate general factors affecting the spot and the futures markets. In addition, and depending on the commodity, there can be significant differences in the liquidity of the spot and the futures markets. Accordingly, Commodity Linked Securities which are linked to commodity futures contracts may provide a different return than Commodity Linked Securities linked to the relevant physical commodity.

Investments in futures contracts involve certain other risks, including potential illiquidity. A holder of a futures position may find that such position becomes illiquid because certain commodity exchanges limit fluctuations in such futures contract prices pursuant to "daily limits". Once the price of a particular futures contract has increased or decreased by an amount equal to the daily limit, positions in the contract can neither be taken nor liquidated unless holders are willing to effect trades at or within the limit. This could prevent a holder from promptly liquidating unfavourable positions and subject it to substantial losses. Futures contract prices in various commodities occasionally have exceeded the daily limit for several consecutive days with little or no trading. Any such losses in such circumstances could have a negative adverse effect on the return of any Securities the Reference Asset of which is the affected futures contract.

In the case of a direct investment in commodity futures contracts, the invested capital may be applied in whole or in part by way of collateral in respect of the future claims of the respective counterparties under the commodity futures contracts. Such capital will generally bear interest, and the interest yield will increase the return of the investor making such direct investment. However, Holders of Securities linked to the price of commodity futures contracts do not participate in such interest yields from the hypothetical fully collateralised investment in commodity futures contracts.

3.3. Risks in relation to legal and regulatory changes relating to Commodities

Legal and regulatory changes relating to the Commodities may lead to an early redemption or termination of the Securities.

Commodities are subject to legal and regulatory regimes that may change in ways that could affect the ability of the Issuer (directly or through its affiliates) to hedge its obligations under the Securities. Such legal and regulatory changes could lead to the early redemption or termination of the Securities or to the adjustment of the terms and conditions of the Securities. Commodities are subject to legal and regulatory regimes in the United States and, in some cases, in other countries that may change in ways that could adversely affect the value of the Securities.

The Dodd-Frank Wall Street Reform and Consumer Protection Act (the "**Dodd-Frank Act**") amends the U.S. federal securities and commodity laws, effecting substantial changes to the regulation of the exchange-traded and over-the-counter ("**OTC**") derivative markets. The Dodd-Frank Act requires regulators, including the Commodity Futures Trading Commission (the "**CFTC**") and the Securities and Exchange Commission (the "**SEC**") to adopt regulations in order to implement many of the requirements of the legislation. While the CFTC and the SEC have substantially completed their rulemaking under the Dodd-Frank Act, the ultimate impact of all potentially relevant regulations cannot yet be determined. For example, there is often only limited interpretive guidance as to the precise meaning, scope and effect of many such regulations. Nonetheless, these regulatory changes are likely to restrict the ability of

market participants to participate in the commodity, future and swap markets, whether on an exchange or OTC, to the extent and at the levels that they have in the past. These factors may have the effect of reducing liquidity and increasing costs in these markets as well as affecting the structure of the markets in other ways. Amongst other things, the Dodd-Frank Act and its implementing regulations require many derivative transactions, including certain rate swaps and index swaps, to be executed on regulated exchanges or trading platforms and cleared through regulated clearing houses. Swap dealers are required to be registered with the CFTC or the SEC, or both, and are subject to various regulatory requirements, including capital and margin requirements. The federal banking regulators, including the Office of the Comptroller of the Currency, the Board of Governors of the Federal Reserve System and the Federal Deposit Insurance Corporation, among others, have also promulgated capital and margin regulations applicable to swap entities that they regulate. The various legislative and regulatory changes, and the resulting increased costs and regulatory oversight, could lead to market participants being required to, or deciding to, limit their trading activities, which could cause reductions in market liquidity and increases in market volatility. These consequences could adversely affect the level or the price of a commodity or swap or the level of a commodity or swap index, which could in turn adversely affect the return on and value of the Securities.

Depending on the terms and conditions of the Securities, the adoption of regulations or other measures which may interfere with the ability of the Issuer to hedge its obligations under the Securities may result in the occurrence of any of a "Change in Law" and a "Commodity Hedging Disruption" (unless specified to be "not applicable" in the relevant Issue Specific Conditions). Following the occurrence of a "Change in Law", the terms and conditions of the Securities may be adjusted to account for such event or, following the occurrence of any of a "Change in Law" or "Commodity Hedging Disruption", the Securities may be redeemed or terminated prior to scheduled maturity by payment of an Early Payment Amount. Such amount may be less than the purchase price of the Securities, and the investor may lose some or up to all of his investment. Further, if the payment on the Securities is made prior to scheduled maturity, the investor may not be able to reinvest the proceeds in an investment having a comparable return.

In addition, other jurisdictions have implemented, and/or may in future implement, legislation similar to that proposed by the Dodd-Frank Act, or other legislation containing restrictions that could adversely impact the liquidity of and increase the costs of participating in the commodities markets.

For example, under the recast Markets in Financial Instruments Directive (EU Directive 2014/65 "MiFID II") and the accompanying Markets in Financial Instruments Regulation (EU Regulation 600/2014, "MiFIR"), there are requirements establishing limits on the trading of commodity derivatives, which, along with any similar future legislation, could have an adverse effect on the prices of commodities and the return on and value of the Securities.

For example, the FCA has imposed specific position limits for those commodity derivatives that are listed on its website (<https://www.fca.org.uk/markets/mifid-ii/commodity-derivatives/position-limits>) and has imposed limits of 2,500 lots for all other commodity derivatives. These limits can be modified by the FCA and may have an adverse effect on the prices of commodities and the return on and value of the Securities.

By way of further example, the European Market Infrastructure Regulation (EU Regulation 648/2012) ("EMIR") and its onshored equivalent ("UK EMIR") require the (i) mandatory clearing of certain OTC derivative contracts, (ii) reporting of certain information in respect of OTC derivative contracts and exchange-traded derivatives, and (iii) implementation of risk mitigation techniques (including margin requirements) for uncleared OTC derivative contracts. EMIR and UK EMIR have broad application and apply to a wide range of market participants. They have increased the cost of transacting in derivatives and, along with any similar future legislation and/or additional implementing measures under EMIR and/or UK EMIR, could adversely impact the price of a commodity and the value of and return on the Securities.

Further, the adoption of or change to certain regulations may negatively impact J.P. Morgan's hedging positions (including by incurring materially increased costs in performing its obligations under the Securities and/or maintaining its hedge positions). In such case, the Issuer and/or the Calculation Agent may either (i) amend the terms and conditions of the Securities to account for such change in law or (ii) redeem the Securities. In the case of an early redemption of the Securities, the Early Payment Amount payable to the Holder may be less than the purchase price of the Securities.

3.4. Risks in relation to disruption fallback provisions

The Securities will be early redeemed if no commodity reference price could be determined by the Calculation Agent after applying application disruption fallback provisions.

The terms and conditions of the Securities may prescribe certain disruption fallback provisions pursuant to which the Calculation Agent may determine the relevant commodity reference price when specified disruption scenarios occur. However, there could be no assurance that any of the prescribed disruption fallback provisions may be feasible due to, for instance, the lack of alternate commodity reference price, the permanent cessation of trading in the relevant commodities, the lack of fallback reference dealers, etc. If the Calculation Agent determines that no commodity reference price could be determined by applying any of the applicable disruption fallbacks, it will not be able to calculate amount payable under the terms of the Securities. In such an event, the Calculation Agent will determine that the Securities shall be early redeemed, and the Issuer shall redeem the Securities in full following such a determination. Holders of the Securities may be unable to recover their investment in the Securities as a result.

4. Risks associated with Futures Contracts as Reference Asset

The specific and material risks associated with Futures Contracts as Reference Asset are described in this sub-category. The risks in this sub-category are classified according to their materiality based on the assessment of the Issuer. The most material risks are mentioned first.

4.1. Risks in connection with the price development of Futures Contracts

An adverse change in the price or value of the asset underlying the Futures Contract may adversely affect the value of the Securities and the Settlement Amount and other payments or deliveries under the Securities.

Futures Contracts, also referred to as futures, are standardised futures transactions linked to (i) financial instruments (e.g. shares, indices, interest rates, dividends or foreign currencies) – so-called financial futures contracts – or (ii) to commodities (e.g. precious metals, wheat, or sugar) – so-called commodity futures contracts.

A Futures Contract represents the contractual obligation to purchase or sell a certain quantity of the respective contract object on a fixed date at an agreed price. Futures Contracts are traded on futures exchanges and are standardised with respect to contract size, type and quality of the contract object, and potential places and dates of delivery. General, a close correlation exists between the price development of the financial instrument or commodity underlying the Reference Asset on a spot market and the corresponding futures market. However, Futures Contracts are generally traded with a premium or discount compared to the spot price of the underlying financial instrument or commodity. This difference between spot and futures price, which is referred to as "basis" in futures exchange terminology, results on the one hand from the inclusion of costs, which usually arise during spot transactions in the calculation (storage, delivery, insurance, etc.), or of income usually related to spot transactions (interest, dividends, etc.) and on the other hand from the differing valuation of general market factors on the spot and futures market. Furthermore, the liquidity may significantly differ between the spot and the corresponding futures market depending on the financial instrument or commodity.

Since the Securities are linked to the exchange price of the Futures Contracts underlying the Securities, it is advisable that Holders of Securities, in addition to knowledge about the market and risks for the financial instrument underlying the relevant Futures Contract or the market and risks for the commodity underlying the relevant Futures Contract (see risk factors relating

to commodities in Section C.3. (*Risks associated with Commodities as Reference Asset*) of the Risk Factors above), also has knowledge about the mechanisms and valuation factors of futures transactions, since an appropriate evaluation of the risks related to the purchase of these Securities is possible only in this case.

4.2. Risks in connection with rolling of Futures Contracts

The rolling of a Futures Contract may have an adverse affect on the price of the Security.

Since any Futures Contract has a predetermined expiration date on which trading of the Futures Contract ceases, the respective Futures Contract may be replaced at a certain point in time (if provided for in the applicable Final Terms) by a Futures Contract, which except for an expiration date that is more distant in the future has the same contract specifications as the originally underlying Futures Contract ("**Rollover**"). If, according to the reasonable discretion of the Calculation Agent, no Futures Contract should exist at that time with the underlying conditions or contract characteristics corresponding to those of the Reference Asset to be replaced, the Issuer has the right to terminate the Securities or to replace the Futures Contract. If necessary, the new Futures Contract is multiplied by an adjustment factor in order to ensure the continuity of the development of the reference values underlying the Securities.

The Rollover is carried out on a trading day (the "**Rollover Date**") within a timeframe specified in the terms and conditions of the Securities shortly before the expiration date of the current Futures Contracts. For this purpose, J.P. Morgan will close out its positions entered into through respective hedging transactions regarding the previous Futures Contracts, the expiration date of which is imminent, on the Rollover Date and build up corresponding positions in respect to a Futures Contract with identical features but a longer term.

The new Futures Contract is selected in intervals specified in the terms and conditions of the Securities. In the case of 3-month intervals, for example, the Futures Contract expiring in January (the "**Old Futures Contract**") is replaced by an identical Futures Contract (the "**New Futures Contract**"), which expires in the following April.

If, according to the reasonable discretion of the Calculation Agent, insufficient liquidity in the trade in the Reference Asset should exist on a Rollover Date at the Trading Facility, the Issuer has the right to postpone the Rollover Date to the next following Scheduled Trading Day.

The "**Rollover Price**" is determined by the Issuer either based on an individual price of the Reference Asset or based on average values of the prices of the Reference Asset. Holders of the Securities should also note in this context that while the Rollover is conducted on the secondary market, no continuous bid and offer prices can be quoted for the Securities.

After completion of the Rollover, the Strike and, if applicable, other relevant thresholds are adjusted based on the Rollover Price for the New Futures Contract pursuant to the scheme described above. In addition, a transaction fee, a so-called "**Rollover Fee**" is charged to cover the transaction costs caused by the Rollover.

"Rolling" can affect the value of an investment in Futures Contracts in a number of ways and depending on the market situation, the adjustments due to the Rollover may have an advantageous or disadvantageous effect for Holders of the Securities. In the case of a so-called "**Contango**" market, where the price of the next maturing Futures Contract into which the rolling occurs is higher than the price of the expiring Futures Contract, the proceeds from the closed out position are sufficient to acquire only a correspondingly smaller quantity of the New Futures Contract. This is correspondingly disadvantageous for Holders of the "Long"-Securities. The opposite is the case in a so-called "**Backwardation**" market. The price of the next maturing Futures Contract into which the rolling occurs lies below the price of the expiring Futures Contract. This is correspondingly disadvantageous for Holders of "Short"-Securities.

Furthermore, Holders of the Securities should take into account that an exercise of the Securities with effect on a Rollover Date occurs based on the Rollover Price determined for the Old Futures Contract.

4.3. Risks in connection with dividend futures contracts

The amount of the total dividends distributed by the companies included in the index may be affected by numerous factors and the dividends may adversely affect the price of the dividend futures contract and, thus, adversely affect the value of the Securities and the Settlement Amount and other payments or deliveries under the Securities.

Dividend futures contracts reflect the sum of the dividends distributed by all companies represented in the underlying index, taking into account the index divisor in index points. A dividend futures contract reflects the stream of dividends in a calendar year, i.e. the relevant contract reflects only the dividends expected for the relevant calendar year.

When calculating the dividend futures contract, all ordinary gross dividends of the companies included in the underlying index are included; i.e. not all disbursements of the companies included in the index are included. Special dividends, capital repayments, or similar distributions are, however, not taken into account to the extent that the respective sponsor of an index makes an adjustment in the underlying index. If the sponsor of an index adjusts the index only in respect to part of the gross dividend, the part that is not adjusted is included in the final settlement price of the dividend futures contract.

The amount of the total dividends distributed, which are paid by the companies included in the underlying index, may be affected by numerous factors, particularly by the profits and dividend policy of the relevant company included in the index, as well as by company decisions, which are due to regulatory or tax considerations. In particular, regulatory and tax aspects may have a significant adverse effects on the payment of dividends. It is possible in the case of individual companies that dividends may be reduced significantly or not paid at all. These factors may adversely affect the price of the dividend futures contract and, thus, the value of the Securities and the Settlement Amount and other payments or deliveries under the Securities.

Holders may not rely on the companies currently included in the index remaining in the underlying index in the future. The composition of the companies included in the index may change during the term of the Securities.

The actual price of the dividend futures contract on the Valuation Date is largely unrelated to the amount of the dividends paid by the companies included in the underlying index during similar dividend periods in the past. Therefore, the future performance of the dividend futures contract cannot be predicted on the basis of the dividends paid by the companies included in the index in the past.

Furthermore, there is no assurance that changes in the value of the Reference Asset are also necessary reflected in the price of the Securities. Therefore, the price of the Securities may decrease, even if the value of the dividend futures contract increases. A difference may also be due to the fact that the default risk of the Issuer is also taken into account in the pricing of the Securities, which may lead to a lower price of the Securities during the term.

4.4. Risks in relation to legal and regulatory changes relating to Futures Contracts

Legal and regulatory changes relating to the Futures Contracts may lead to an early redemption or termination of the Securities.

The adoption of position limit regulations or other measures which may interfere with the ability of the Issuer to hedge its obligations under the Securities may result in the occurrence of any of a "Change in Law" and a "Futures Contract Disruption" (unless specified to be "not applicable" in the relevant Issue Specific Conditions). Following the occurrence of a "Change in Law", the terms and conditions of the Securities may be adjusted to account for such event or, following the occurrence of any of a "Change in Law" or "Futures Contract Hedging Disruption", the Securities may be redeemed or terminated prior to scheduled maturity by payment of an Early Payment Amount. Such amount may be less than the purchase price of the Securities, and the investor may lose some or up to all of his investment. Further, if the payment on the Securities is made prior to scheduled maturity, the investor may not be able to reinvest the proceeds in an investment having a comparable return.

5. Risks associated with Foreign Exchange Rates as Reference Asset

The specific and material risks associated with Foreign Exchange Rates as Reference Asset are described in this sub-category. The risks in this sub-category are classified according to their materiality based on the assessment of the Issuer. The most material risks are mentioned first.

5.1. Risks related to the development of the price of the Foreign Exchange Rates

The development of the price of Foreign Exchange Rates depends on a variety of economic factors and in the event of an adverse development of these factors, the value of the Foreign Exchange Rates and, accordingly, the value of the Security and/or the Settlement Amount and/or any other payments or other deliveries under the Securities may be adversely affected.

The performance of foreign exchange rates is dependent upon the supply and demand for currencies in the international foreign exchange markets, which are subject to economic factors, including inflation rates in the countries concerned, interest rate differences between the respective countries, economic forecasts, international political factors, currency convertibility and safety of making financial investments in the currency concerned, speculation and measures taken by governments and central banks. Such measures include, without limitation, imposition of regulatory controls or taxes, issuance of a new currency to replace an existing currency, alteration of the exchange rate or exchange characteristics by devaluation or revaluation of a currency or imposition of exchange controls with respect to the exchange or transfer of a specified currency that would affect exchange rates as well as the availability of a specified currency. In the event of an adverse development of the factors described above affecting the development of a Foreign Exchange Rate, this may adversely affect the value of the Foreign Exchange Rates and, accordingly, the value of the Security and/or the Settlement Amount and/or any other payments or deliveries under the Securities.

Foreign exchange rates reflect the value ratio of one specific currency to a different currency. In international foreign exchange trading, where a specific currency is traded against another, the currency being traded is referred to as the "**Base Currency**", while the currency which states the price for the Base Currency, is referred to as "**Reference Currency**". For example, the foreign exchange rate "EUR/USD 1.1888" indicates that USD 1.1888 (= Reference Currency) has to be paid to purchase one Euro (= Base Currency). An increase in this foreign exchange rate therefore means an increase of the Euro compared to the US-Dollar. Conversely, the foreign exchange rate "USD/EUR 0.8412" indicates that EUR 0.8412 has to be paid to purchase one US-Dollar. An increase in this foreign exchange rate therefore means an increase in the US-Dollar compared to the Euro. The value of foreign exchange rates are published on screen pages of renowned financial information services (such as e.g. Reuters or Bloomberg) or official determined by central banks (such as the European Central Bank). If a foreign exchange rate is not available on a financial information services, the price can be determined indirectly by using two foreign exchange rate pairs, each of which contains a currency of the foreign exchange rate pair underlying the Securities as well as a common reference currency whereby the price of the foreign exchange rate in such case is determined by making a cross rate calculation of these two foreign exchange rates.

5.2. Risks of manipulation

Manipulations of the fixing of foreign exchange rates may have an adverse effect on the relevant foreign exchange rate and, accordingly, the value of the Security and/or the Settlement Amount and/or any other payments or deliveries under the Securities may be adversely affected.

Investors should note that the fixing of foreign exchange rates was manipulated by agreements between market participants in the past. The Issuer cannot exclude the possibility that manipulations of the fixing of foreign exchange rates will arise in the future. In the case of manipulations this may have an adverse affect on the respective value of the foreign exchange rate and, accordingly, the value of the Security and/or the Settlement Amount and/or any other payments or deliveries under the Securities.

D. RISK FACTORS WHICH APPLY TO ALL OR SEVERAL TYPES OF REFERENCE ASSETS

In this category, the material and specific risks which apply to all or several Reference Assets are described. The risks are classified according to their materiality based on the assessment of the Issuer. The most material risks are mentioned first.

1. Risks in connection with currency conversion

The Securities may have foreign exchange risks where payments under the Securities will be made in a currency which is different from the currency of the Reference Asset; furthermore, the Holder bears a currency risk if the account of the Holder to which the Settlement Amount or other amounts is paid is held in a currency other than the currency of the Security.

If the terms and conditions of the Securities provide that payment under the Securities will be made in a currency which is different from the currency of the Reference Asset, and/or different from the investment currency of the investor, the investor may: (i) be exposed to the adverse movement of the Specified Currency relative to the currency of the Reference Asset, and/or investment currency of the investor; and/or (ii) not be able to benefit from the positive movement of the Specified Currency relative to the currency of the Reference Asset, and/or the investment currency of the investor.

Foreign exchange rates are highly volatile and are determined by various factors, including supply and demand for currencies in the international foreign exchange markets, economic factors including inflation rates in the countries concerned, interest rate differences between the respective countries, economic forecasts, international political factors, currency convertibility, safety of making financial investments in the currency concerned, speculation and measures taken by governments and central banks.

A foreign exchange rate can be fixed by the sovereign government, allowed to float within a range of exchange rates set by the government or left to float freely. Exchange rates of most economically developed nations are permitted to fluctuate in value relative to each other. However, from time to time governments may use a variety of techniques, such as intervention by a country's central bank, the imposition of regulatory controls or taxes or changes in interest rates to influence the exchange rates of their currencies. In addition, governments around the world, including the governments of other major world currencies, have recently made, and may be expected to continue to make, very significant interventions in their economies, and sometimes directly in their currencies. Governments may also issue a new currency to replace an existing currency or alter the exchange rate or relative exchange characteristics by a devaluation or revaluation of a currency. These governmental actions could change or interfere with currency valuations and may cause currency exchange rates to fluctuate more than would otherwise occur in response to economic forces, as well as in response to the movement of currencies across borders.

The Issuer will not make any adjustment or change in the terms of the Securities in the event that exchange rates should become fixed, or in the event of any devaluation or revaluation or imposition of exchange or other regulatory controls or taxes, or in the event of other developments affecting the applicable foreign currency. Investors will bear those risks.

Foreign exchange fluctuations between the investment currency of the investors and the currency in which payment under the Securities is due may affect investors if they intend to convert gains or losses from the exercise or sale of Securities into their investment currency and may eventually cause a partial or total loss of the initial investment of the investors.

If the Reference Asset is not denominated in the specified currency of the Securities and at the same time only the performance of the Reference Asset in their denominated currency is relevant to the payout on the Securities, such Securities are referred to as currency-protected Securities or Securities with a "quanto" feature. Under such feature, the investment return of the Securities depends only on the performance of the Reference Asset (in the relevant currency) and any change in the rate of exchange between the currency of the Reference Asset and the specified currency of the Securities is disregarded. Therefore, investors will lose the

potential benefit of any change in the rate of exchange between the currency of the Reference Asset and the Securities that would otherwise serve to increase the relevant performance measure of the Reference Asset following conversion into the currency of the Securities. In addition, changes in the relevant exchange rate may indirectly influence the price of the relevant Reference Asset which, in turn, could have a negative effect on the return on the Securities.

Investors should note that JPMorgan Chase companies are regular participants in the foreign exchange markets and in the ordinary course of their business may effect transactions for their own account or for the account of their customers and hold long and short positions in currencies and related derivatives, including in the currencies of the relevant foreign exchange rate(s). Such transactions may affect the relevant foreign exchange rate, the market price, liquidity or value of the Securities and could be adverse to the interests of investors. JPMorgan Chase is not under any duty or obligation to enter into such transactions in a manner which is favourable to investors (see Section H. of the Risk Factors below).

If the Calculation Agent is unable to obtain a value for a foreign exchange rate (because the reference currency and/or base currency ceases to exist, or for any other reason other than a temporary disruption), the Calculation Agent may rebase the Securities against another foreign exchange rate determined by it in its reasonable discretion to be a comparable foreign exchange rate. In such an event, Holders may receive less or even no return from holding the Securities by comparison to holding Securities linked to the original foreign exchange rate.

Furthermore, if there is no comparable foreign exchange rate to the discontinued foreign exchange rate, the Calculation Agent may determine that the Securities shall be early redeemed. In such an event, the Issuer will redeem the Securities in full at the early redemption amount as specified in the terms and conditions of the Securities. Any applicable early redemption amount may be less than the redemption amount at maturity.

2. Certain risks in relation to the Benchmark Regulation

Requirements due to the Benchmark Regulation may lead to an early redemption of the Securities.

If the Reference Asset or the relevant exchange rate that is used for the conversion from the currency of the Reference Asset into the Specified Currency is a "benchmark" under the Benchmark Regulation and (i) it would be unlawful or contradictory to any applicable licensing requirements for the Calculation Agent to determine the level or other value of such Reference Asset or make any other determination in respect of the Securities which it would otherwise be obliged to do so pursuant to the Conditions, or (ii) if the benchmark administrator does not obtain or maintain (as applicable) an authorisation or a registration or, if a non-EU entity, "equivalence" is not available and it is not recognised, then the Securities may be redeemed prior to maturity. See also section E.1. of the Risk Factors below.

3. Risks due to the dependency of the market value or return on the Securities on the performance of the Reference Asset

The market value or return on the Securities depends on the performance of the Reference Asset; the market value or return on the Securities may not be comparable or directly proportionate to the change in value of such Reference Asset.

Securities which are linked to a Reference Asset represent an investment linked to the economic performance of the relevant Reference Asset. Any return on the Securities will depend upon the performance of such Reference Asset. Investors should not invest in Securities if they do not fully understand (either alone, or with the help of a financial adviser) how the performance of the relevant Reference Asset may affect the return on the Securities.

In contrast to a direct investment in the relevant Reference Asset, Securities represent the right to receive payment and/or delivery of amounts which will be determined by reference to the performance of the relevant Reference Asset. Whilst the return on the Securities will be

influenced (positively or negatively) by such Reference Asset, any change may not be comparable or directly proportionate to the change in value of such Reference Asset, and investors may receive less or lose more than if they had invested in the Reference Asset directly.

J.P. Morgan for its own benefit or for clients, may execute transactions in the underlying or derivatives linked to the Reference Asset, during the term of the Security. Therefore, this activity could be contributing to influencing prices of market parameters, that are relevant to the valuation of the Security and, as a consequence, may have an adverse effect on the price of the Security (see also Section F.1. of the Risk Factors below).

The Issuer has no obligation to hold the Reference Asset, and the Securities are unsecured. Investors will not have any legal or beneficial rights of ownership in the Reference Asset, including, any voting rights, any rights to receive dividends or other distributions or any other rights with respect to the Reference Asset.

Any information about the past performance of the Reference Asset at the time of the issuance of the Security should not be regarded as indicative of the range of, or trends in, fluctuations in the Reference Asset that may occur in the future. Actual results will be different, and such differences may be material.

4. Risks in connection with investments in emerging markets

There are additional risks in investing in Securities which are linked directly or indirectly to emerging market Reference Asset(s) or currencies.

Where the Securities are linked, directly or indirectly, to emerging market jurisdictions investors will be exposed to the risks of volatility, governmental intervention and the lack of a developed system of law which are associated with such jurisdictions.

In relation to Securities linked to securities issued by emerging market issuers, there are specific risks that there is generally less publicly available information about emerging market issuers and potentially less developed accounting, auditing and financial reporting standards and requirements and securities trading rules. Additionally, the prices of securities in emerging market jurisdictions and the financial health of the issuers may be affected by political, economic, financial and social instability in such jurisdictions, including changes in a country's government, economic and fiscal policies, currency exchange laws or other foreign laws or restrictions.

Securities linked indirectly to emerging markets, via securities, indices, commodities or currencies, may also be exposed to the risks of economic, social, political, financial and military conditions in such jurisdictions, including, in particular, political uncertainty and financial instability; the increased likelihood of restrictions on export or currency conversion; the greater potential for an inflationary environment; the possibility of nationalisation or confiscation of assets; the greater likelihood of regulation by the national, provincial and local governments, including the imposition of currency exchange laws and taxes; less liquidity in emerging market currency markets as compared to the liquidity in developed markets and less favourable growth prospects, capital reinvestment, resources and self-sufficiency.

A combination of any or all of the risk factors outlined above may have a negative impact on the value of any Reference Asset linked to emerging markets or on the value of the Securities directly.

E. RISK FACTORS ARISING FROM THE CONDITIONS OF THE SECURITIES

In this category, the material and specific risks arising from the Conditions of the Securities are described. The risks are classified according to their materiality based on the assessment of the Issuer. The most material risks are mentioned first, whereby the risks set out in this category are only relevant for those Securities which provide for the respective features.

1. Risks in connection with an extraordinary termination

The Securities may be redeemed or terminated (as applicable) prior to their scheduled maturity for various unforeseen reasons, and in such case investors may receive back less than the original investment and investors may not be able to reinvest the proceeds in an equivalent investment.

Securities may be redeemed or terminated (as applicable) prior to their scheduled maturity for any of the following reasons:

- the occurrence of a mandatory early redemption event (e.g. the price of the Reference Asset rises above or falls below a pre-determined level (e.g. the Knock-Out Barrier and/or the Stop-Loss Barrier) or if the intrinsic value of the Securities after the occurrence of an Adjustment Event is zero or negative, if specified in the terms and conditions of the Securities);
- the exercise by the Issuer of a call option, if specified to be applicable in the relevant Issue Specific Conditions (see Section E.2. of the Risk Factors below);
- the exercise of the Securities by investors, if specified to be applicable in the relevant Issue Specific Conditions;
- the occurrence of certain events outside of the control of the Issuer or other circumstances in relation to a Reference Asset at the discretion of the Calculation Agent or in relation to the floating rate of interest or coupon rate;
- the Issuer determines that its performance under any Security has become unlawful in whole or in part for any reason;
- in certain circumstances where the Issuer determines that it will become subject to withholding tax on payments made to it as a result of Holders failing to provide information required by FATCA, there is a substantial likelihood that it will violate any requirement of, or an agreement entered into with a taxing authority with respect to, FATCA or there is a substantial likelihood that a series of Securities will be treated, for U.S. federal income tax purposes, as being in bearer form or following the occurrence of certain taxation events with respect to the Securities or (if specified to be applicable in the relevant Issue Specific Conditions) with respect to underlying hedging transactions;
- following the occurrence of circumstances in which the Issuer is (or, in the determination of the Calculation Agent, there is a reasonable likelihood that, within the next 30 Business Days, the Issuer will become) subject to any withholding or reporting obligations pursuant to Section 871(m) of the U.S. Internal Revenue Code with respect to the relevant Securities ("**Section 871(m) Event**");
- following the occurrence of an Event of Default;
- following the occurrence of an Extraordinary Hedge Disruption Event (see also Section E.9. of the Risk Factors below); or
- if the Reference Asset is a "benchmark" under the Benchmark Regulation (Regulation (EU) 2016/2011 on indices used as benchmarks in financial instruments and financial

contracts or to measure the performance of investment funds (the "**Benchmark Regulation**") and (i) it would be unlawful or contradictory to any applicable licensing requirements for the Calculation Agent to determine the level or other value of such Reference Asset or make any other determination in respect of the Securities which it would otherwise be obliged to do so pursuant to the Conditions, or (ii) if the benchmark administrator does not obtain or maintain (as applicable) such authorisation or registration or, if a non-EU entity, "equivalence" is not available and it is not recognised. See also section G.2. of the Risk Factors below.

On early redemption or termination due to any of the circumstances described above, the investor will receive (subject in the case of an occurrence of an Event of Default to claims of other creditors) the "Early Payment Amount" in full and final settlement of the Securities. The Early Payment Amount is an amount representing the fair market value of the Securities determined by the Calculation Agent using its internal models and methodologies by reference to such factors as the Calculation Agent may consider to be appropriate, i.e. in the case of any of the circumstances described above there is no claim to payment of an amount to be calculated based on a repayment formula determined in the Conditions for the ordinary end of the term nor is there a fixed unconditional minimum amount. **The Early Payment Amount may be less than the original purchase price of the Securities and could be as low as zero (0).**

In the case of an early redemption or termination a reinvestment risk exists, i.e. the Holder bears the risk that it may only be able to reinvest the returned funds on more unfavourable terms.

2. Risks in connection with an ordinary termination

If the Securities include an ordinary termination right of the Issuer, then (a) an investor will not be able to participate in any future performance of the Reference Asset following the termination date, (b) the market value of the Securities may be limited and (c) the investor will be subject to reinvestment risk if the Securities are terminated.

Where the Issue Specific Conditions of the Securities provide that the Issuer has the right to call for the early redemption or termination of the Securities (see, for example sections E.9. of the Risk Factors below), following any such exercise by the Issuer, investors will lose the opportunity to participate any further through his Securities in the performance of the Reference Asset.

An ordinary termination right of Securities is likely to limit their market value. During any period when the Issuer may elect to redeem Securities, the market value of those Securities generally will not rise above the price at which they can be redeemed.

Holders should note that the Issuer exercises its ordinary termination right in its reasonable discretion and is not subject to any commitments regarding the exercise of its ordinary termination right. In this context it should be noted that the higher the volatility of the Reference Asset or the more illiquid the market in financial instruments linked to the Reference Asset (including the futures and lending market), the more likely it is that the Issuer will make use of its ordinary termination right. In the case of an early redemption or termination a reinvestment risk exists, i.e. the Holder bears the risk that it may only be able to reinvest the returned funds on more unfavourable terms.

3. Risks in connection with market disruptions and adjustment measures

Market disruptions and adjustment measures may negatively impact the return on the Securities and may affect the rights of the Holders.

The occurrence or existence of market disruptions is determined in accordance with the Conditions. In such case, the Reference Dates specified in the applicable Final Terms will be postponed and the return on the Securities could be adversely affected. Market disruptions may affect the price of the Securities and delay the repayment of Securities. If any Reference Date is postponed to the last possible day and the market disruption event is still occurring on that day or such day is not a trading day, the Calculation Agent will nevertheless determine in

its reasonable discretion the value of that Reference Asset on such last possible day. Any such determination may negatively impact the return on the Securities.

Adjustment measures are carried out in accordance with the Conditions. In the case of adjustment measures in respect to the Reference Asset, it cannot be ruled out that the assessment, on which an adjustment measure is based subsequently turns out to be incorrect and the adjustment measure subsequently turns out to be disadvantageous for the Holder and the Holder may be placed in a worse economic situation through the adjustment measure than he was in prior to an adjustment measure or would be in through a different adjustment measure.

4. Risks in connection with discretionary determinations by the Calculation Agent

The Calculation Agent (and the Issuer) has the power to make discretionary determinations under the Securities, any of which may have a material adverse effect on the Securities.

Under the terms and conditions of the Securities, following the occurrence of certain events outside of its control, the Calculation Agent or the Issuer (as applicable) may exercise discretion to take one or more actions available to it in order to deal with the impact of such events on the Securities or (if applicable to the particular issue of Securities) the Issuer's hedging arrangements. Any such discretionary determination by the Calculation Agent or the Issuer could have a negative impact on the value of and return on the Securities and (amongst other things) could result in their early redemption (see also Sections C.1.2 and C.2.5 of the Risk Factors above). There may be a conflict of interest between the Issuer or the Calculation Agent making any determinations binding on the investor and the investor's bet interest.

5. Risks in connection with a Payment Disruption Event

The occurrence of a Payment Disruption Event may lead to a delay and/or reduced payment or a payment in U.S. Dollars or a write down of payment obligations to zero (0).

A "Payment Disruption Event" is an event which (a) prevents, restricts or delays the Issuer from converting or delivering relevant currencies, (b) imposes capital or exchange controls, (c) implements changes to laws relating to foreign investments, or (d) otherwise prohibits or prevents the Issuer from making a payment or performing an obligation required of it as a result of war, catastrophe, governmental action or other event beyond its control. Where the Calculation Agent determines that a Payment Disruption Event has occurred or is likely to occur, then the next payment or settlement or exercise date (as applicable) under the Securities may be postponed to a date falling 14 calendar days after the date on which the Payment Disruption Event is no longer occurring. No interest shall accrue and no Event of Default will result on account of such postponement. In the event that a Payment Disruption Event is still continuing on the date which is one year after the last scheduled payment date for the Securities, then the outstanding payment obligations of the Issuer shall be fulfilled by payment on the following tenth Business Day of the relevant amount in an equivalent amount in U.S. Dollars based on the conversion from the affected currency to U.S. Dollars on the second Business Day immediately preceding the payment date, and the Issuer shall have no further obligations whatsoever under the Securities. In the event the Calculation Agent is unable to determine the equivalent amount in U.S. Dollars, the Holders will not receive any amounts. Thereafter, the Issuer shall have no obligations whatsoever under the Securities.

6. Risks in relation to Securities to be settled by way of physical delivery

Investors should take into account that the delivered Reference Asset and/or share if an Exchange Traded Fund may only have a very low value or may be worthless and that they bear the issuer and securities risks of the deliverable Reference Asset or share of an Exchange Traded Fund.

If the Securities are subject to Physical Settlement, i.e. where the Securities provide that, subject to the fulfillment of particular conditions, the Securities shall be redeemed at their maturity by the delivery of the Reference Asset or, in the case of undeliverable Reference Assets, by the delivery of shares of an Exchange Traded Fund, the Holders will receive such Reference Asset or share of an Exchange Traded Fund rather than a monetary amount upon

maturity. The number of units of the Reference Asset or the number of shares of an Exchange Traded Fund to be delivered is determined in the relevant Final Terms.

The Holders are subject to the specific issuer and securities risks of the deliverable Reference Asset or share of an Exchange Traded Fund. Holders should familiarise themselves with the deliverable Reference Asset or share of an Exchange Traded Fund when they purchase the Securities. The Holders should not assume that they will be able to sell the deliverable Reference Asset or share of an Exchange Traded Fund for a specific price after the redemption of the Securities and in particular not for a price corresponding to the amount of capital used to purchase the Securities. Under certain circumstances the delivered Reference Asset or share of an Exchange Traded Fund may only have a very low value or may, in fact, be worthless. In this case, there is a risk of a total loss of the invested capital (including the related transaction costs).

Holders should note that the delivered Reference Asset or share of an Exchange Traded Fund may be sold at the earliest following registration in the securities account of the Holder. The Holder has no claim to the Reference Asset or share of an Exchange Traded Fund prior to the registration of the transfer of the same. The price of the Reference Asset or share of an Exchange Traded Fund may decline in the period between the Valuation Date and the date of registration in the Holder's securities account. The effective profit or loss is only determined once the Reference Asset or share of an Exchange Traded Fund has been delivered and then sold or once the proceeds from the Reference Asset or share of an Exchange Traded Fund have otherwise been realised.

Furthermore, it is to be noted that the Issuer has the right to pay compensation in lieu of delivery of the Reference Asset or share of an Exchange Traded Fund, if for any reason whatsoever it is economically or practically difficult or impossible to deliver the Reference Asset or share of an Exchange Traded Fund.

If the Reference Asset to be delivered is a registered share, Holders should consider that the rights associated with the shares (e.g. participation in the general meeting, exercise of voting rights, etc.) can generally only be exercised by shareholders who are registered in the share register or a comparable official list of shareholders of the company. The obligation of the Issuer to deliver shares is limited to provision of the shares effected with the characteristics and in the form that allow delivery via an exchange and does not cover registration in the share register or list of shareholders. Any claims due to non-fulfilment, in particular rescission or damage claims, are excluded in such cases.

If the Securities are subject to Physical Settlement, investors must pay all expenses relating to delivery of such Securities, including expenses, costs, charges, levies, tax, duties, withholding, deductions or other payments including without limitation, all depository, custodial, registration, transaction and exercise charges and all stamp, issues, registration or, securities transfer or other similar taxes or duties incurred by JPMorgan Chase in respect of the Issuer's obligations under the Securities and/or the delivery of the Reference Assets or shares of the Exchange Traded Funds.

7. Risks in connection with a substitution of the Issuer

The Issuer of Securities may be substituted without consent of the Holders.

The Issuer of Securities may be substituted as the Issuer of Securities in favour of JPMorgan Chase & Co. or any of its subsidiaries, without the consent of the Holders or any right of the Holders to object to such substitution. The right of substitution is subject to: (i) the Issuer having become obliged (due to a change in law) to pay Additional Amounts or (ii) the Issuer or any affiliate(s) of the Issuer or any entity (or entities) acting on behalf of the Issuer incurring a materially increased cost with respect to taxes in performing its obligations in relation to underlying hedging transactions (due to a change in law). The right of substitution is conditional on certain terms, including that (a) the new issuer provides an indemnity in favour of the Holders of such Securities in relation to any additional tax or duties that become payable solely as a result of such substitution and (b) the Securities will remain guaranteed by the Issuer.

8. Risks in connection with amendment of terms and conditions of the Securities

The terms and conditions Securities may be amended without the Holders consent in certain cases.

The terms and conditions of the Securities may be amended by the Issuer without the consent of the Holders, if the amendment is to correct any manifest clerical or calculation errors or similar manifest incorrectness. In addition, the Issuer may, without the consent of the Holders, amend or supplement at its reasonable discretion any contradictory or incomplete provisions of the terms and conditions of the Securities, provided that such amendments are reasonably acceptable to the Holders.

9. Risks in connection with an Extraordinary Hedge Disruption Event

Where applicable, the Securities may be redeemed or terminated (as applicable) prior to their scheduled maturity due to the occurrence of an Extraordinary Hedge Disruption Event.

An "Extraordinary Hedge Disruption Event" is one or more of the following events (in each case, if specified to be applicable in the relevant Issue Specific Conditions):

- an "Extraordinary Hedge Sanctions Event" - in broad terms, due to a change in law relating to financial sanctions and embargo programmes (or change in interpretation of such law), it becomes illegal or is likely to become illegal for the Hedging Entity to perform its obligations under hedging transactions in relation to the relevant Securities. For this purpose, "Hedging Entity" means each of the Issuer and any affiliate(s) of the Issuer and any entity (or entities) acting on behalf of the Issuer engaged in any underlying or hedging transactions relating to the Securities and/or Reference Assets in respect of the Issuer's obligations under the Securities. However, an Extraordinary Hedge Sanctions Event also occurs where, due to a change in law relating to financial sanctions and embargo programmes (or change in interpretation of such law), it becomes illegal or is likely to become illegal for the Related Hedging Entity to perform its obligations under hedging transactions in relation to the relevant Securities, as if the Related Hedging Entity was a party to such hedging transactions. For this purpose, the "Related Hedging Entity" means JPMorgan Chase & Co. Therefore, it is possible that an Extraordinary Hedge Sanctions Event could occur in relation to the Securities even if the particular Hedging Entity is not directly affected by the change in law but JPMorgan Chase & Co. would be affected by such change, were it a party to the hedging transactions. For example, a change in U.S. law may affect JPMorgan Chase & Co. but may not affect the non-US entity in the JPMorgan Chase group acting as the Hedging Entity, but this may nevertheless trigger an Extraordinary Hedge Sanctions Event, which may lead to early redemption of the Securities. The rationale for the extension of Extraordinary Hedge Sanctions Event to JPMorgan Chase & Co. in addition to the Hedging Entity is that the corporate policy of JPMorgan Chase may require global uniformity with sanction regimes, even where a sanction only applies to JPMorgan Chase & Co.;
- an "Extraordinary Hedge Bail-in Event" - in broad terms, the Hedging Entity or its counterparty becomes subject to a resolution regime and, as a result, the obligations of the Hedging Entity or its counterparties under hedging transactions in relation to the Securities are subject to the exercise of a "bail-in" or other resolution power by the relevant resolution authority (or it is likely that the resolution authority will exercise a "bail-in" or other resolution power within the next 90 days) or there is otherwise a material adverse effect on such hedging transactions; or
- an "Extraordinary Hedge Currency Disruption Event" - in broad terms, a governmental authority introduces, or is likely to introduce within the next 90 days, a new currency and/or capital controls and, as a result, the payment obligations under the hedge transactions relating to the Securities are redenominated into another currency and/or are subject to capital controls and/or such hedge transactions are otherwise materially adversely affected,

The Issue Specific Conditions of the relevant Securities will specify whether or not any of the three events described above is applicable or not in relation to those Securities. If an event may be both an Extraordinary Hedge Disruption Event and a "Payment Disruption Event" and the Issuer elects to early redeem or terminate (as applicable) the Securities, the consequences relating to Payment Disruption Events will not apply.

On early redemption or termination, as applicable, of the Securities following the occurrence of an Extraordinary Hedge Disruption Event, investors will receive the Early Payment Amount in full and final settlement of the Securities. **The Early Payment Amount may be less than the original purchase price of the Securities and could be as low as zero (0)** (see Section E.1 of the Risk Factors above).

F. RISK FACTORS ASSOCIATED WITH THE INVESTMENT IN THE SECURITIES

In this category, the material and specific risks associated with the investment in the Securities are described. The risks are classified according to their materiality based on the assessment of the Issuer. The most material risks are mentioned first.

1. Risks in relation to the market value of the Securities

The market value of the Securities on the start of the public offer and thereafter may be less than the original Issue Price and may be volatile; the market value is subject to many factors which could adversely affect the value of the Securities.

As at the start of the public offer, the Issue Price of the Securities will likely be more than the market value of such Securities, and more than the price, if any, at which the Dealer or any other person would be willing to purchase the Securities in secondary market transactions. In particular, (a) where permitted by applicable law, the Issue Price may take into account amounts with respect to commissions relating to the issue and sale of the Securities and (b) amounts relating to the hedging of the Issuer's obligations under such Securities, including the profits JPMorgan Chase expects to realise in consideration for assuming the risks inherent in providing such hedge.

Any secondary market prices of the Securities will likely be lower than the original issue price of the Securities because, among other things, secondary market prices may take into account the secondary market credit spreads of the Issuer and, also, because secondary market prices (a) may exclude selling commissions and (b) may exclude projected hedging profits, if any, and estimated hedging costs that are included in the original issue price of the Securities. As a result, the price, if any, at which the Dealer or any other person would be willing to buy Securities from investors in secondary market transactions, if at all, is likely to be lower than the original issue price. Any sale by the investor prior to the maturity date could result in a substantial loss to the investor. See the immediately following risk consideration for information about additional factors that will impact any secondary market prices of the Securities.

Many economic and market factors will influence the value of the Securities. Generally, the price of the Reference Asset, if any, on any day will likely affect the value of the Securities more than any other single factor. However, investors should not expect the value of the Securities in the secondary market to vary in direct proportion to changes in the price of the Reference Asset. The value of the Securities will be affected by a number of other factors that may either offset or magnify each other, including, but not limited to:

- the creditworthiness of the Issuer, including actual or anticipated downgrades in their respective credit ratings;
- the actual and expected frequency and magnitude of changes in the value of any Reference Asset (i.e. volatility);
- the remaining time to maturity of the Securities;
- depending on the type of Reference Asset:

- the dividend rate on a Share or on the equity securities underlying an Index (while not paid to Holders of the Securities, dividend payments on a Share or on any equity securities underlying an Index may influence the price of the Reference Asset and the market value of options on the Reference Asset and therefore affect the market value of the Securities) and any applicable taxes in relation to any such dividend rates;
- the occurrence of certain corporate events to a Share or shares represented by a Depositary Receipt (being, an American Depositary Receipt or a Global Depositary Receipt);
- the occurrence of certain events to the shares of an exchange traded fund (an "ETF") that may or may not require an adjustment to the terms and conditions of the Securities;
- supply and demand trends and market prices at any time for the relevant Commodities or the exchange-traded futures contracts on such Commodities;
- interest and yield rates in the market generally as well as in the markets of a Share and the markets of the securities or other constituents included in an Index;
- economic, financial, political, regulatory and judicial events that affect a Share, the equity securities underlying an Index or stock markets generally;
- economic, financial, political, regulatory, geographical, agricultural, meteorological or judicial events that affect commodity markets generally;
- the exchange rates and the volatility of the exchange rates between the currency of denomination of the Securities and the currencies in which a Reference Asset Share (with respect to a Reference Asset that is a Depositary Receipt) or the equity securities underlying an Index are traded, and, if an Index is calculated in one currency and the equity securities underlying that Index are traded in one or more other currencies, the correlation between those rates and the value of that Index.

Some or all of these factors will influence the price investors will receive if they choose to sell their Securities prior to maturity. The impact of any of the factors set forth above may enhance or offset some or all of any change resulting from another factor or factors. Investors may have to sell their Securities at a substantial discount from the original purchase price and may lose some or all of their investment.

The value of the Securities is expected to be affected, in part, by the general perceptions of investors of the creditworthiness of JPMorgan Chase Bank, N.A. or JPMorgan Chase & Co. Such perceptions may be influenced by the ratings accorded to outstanding securities of JPMorgan Chase Bank, N.A. or JPMorgan Chase & Co. by well-recognised rating agencies, such as Moody's Investors Service Inc., Fitch, Inc. and Standard & Poor's, a division of The McGraw Hill Companies, Inc. A reduction in the rating, if any, accorded to outstanding securities of JPMorgan Chase Bank, N.A. or JPMorgan Chase & Co., by one of these rating agencies could result in a reduction in the trading value of the Securities.

The credit ratings of JPMorgan Chase Bank, N.A. and JPMorgan Chase & Co. may move independently of one another. JPMorgan Chase & Co. and its subsidiaries (other than JPMorgan Chase Bank, N.A.) are generally permitted to undertake a wider range of activities than JPMorgan Chase Bank, N.A. and its subsidiaries. As a result, while the credit rating of JPMorgan Chase & Co. and JPMorgan Chase Bank, N.A. are closely related, those credit ratings are usually different and, in the event of any change in those credit ratings, those ratings may move independently of each other. JPMorgan Chase Bank, N.A. is typically rated more highly than JPMorgan Chase & Co. but there is no assurance that this will always be the case and investors should check the relevant rating at the time of considering any investment in Securities.

The price, performance or investment return of the Reference Asset may be subject to sudden, large and unpredictable changes over time and this degree of change is known as "volatility".

The volatility of a Reference Asset may be affected by national and international financial, political, military or economic events, including governmental actions, or by the activities of participants in the relevant markets. Any of these events or activities could adversely affect the value of the Securities. It should also be noted that the Issuer's hedging costs tend to be higher or increase in a volatile and uncertain market environment or in the case of a less liquid Reference Value, which may be reflected in higher spreads between the bid and offer price that could adversely affect the value of the Securities.

If at any time a third party dealer quotes a price to purchase Securities or otherwise values Securities, that price may be significantly different (higher or lower) from any price quoted by JPMorgan Chase. Furthermore, if investors sell their Securities, they will likely be charged a commission for secondary market transactions, or the price may reflect a dealer discount.

2. Risks in relation to trading of the Securities

Secondary market trading may be limited, and investors may not be able to sell their Securities prior to scheduled maturity.

The Securities may have no established trading market when issued, and one may never develop. If a market does develop, it may not be very liquid and Holders may not be able to find a buyer. Therefore, Holders may not be able to sell their Securities or, if they can, they may only be able to sell them at a price which is substantially less than the original purchase price.

The Issuer may list the Securities on a stock exchange but, in such case, the fact that such Securities are listed will not necessarily lead to greater liquidity. If Securities are not listed or traded on any exchange, pricing information for such Securities may be more difficult to obtain and they may be more difficult to sell.

JPMorgan Chase may act as a market maker for the Securities and quote bid and ask prices for the Securities of an issue on a regular basis under normal market conditions. However, JPMorgan Chase does not commit and is under no obligation legal or otherwise to quote bid and ask prices for the Securities of an issue. In particular, JPMorgan Chase reserves the right at any time and without prior notice (subject to the rules of any relevant stock exchange) to suspend temporarily or permanently and also to resume the quotation of bid and offer prices. Principally all prices are only available during normal business hours and under normal market conditions. Special market situations may occur, such as highly volatile markets, disruptions in trading or in the price determination of the Reference Asset or comparable events including, but not limited to, regulatory restrictions, a barrier event or stop-loss event or knock-out event indicatively having happened as well as special circumstances, such as technical disruptions, information transmission issues between market participants or force majeure events which may lead to a situation where prices are not available. **Investors should therefore not assume that the Securities can be sold at a specific time or at a specific price during their life.**

If JPMorgan Chase does make a market for the Securities, investors should note that delays may occur during the price determination. In contrast to most other securities, the pricing of the Securities is not based on the principle of supply and demand. The bid and ask prices quoted by JPMorgan Chase for the Securities are calculated based on internal pricing models.

As other market makers may not participate significantly in the secondary market for the Securities, the price at which investors may be able to trade their Securities is likely to depend on the price, if any, at which JPMorgan Chase is willing to buy the Securities (see Section F.1 of the Risk Factors above). If at any time the Dealer or another agent does not act as a market maker, it is likely that there would be little or no secondary market for the Securities. Even if a secondary market does develop, it is not possible to predict the price at which Securities will trade in such secondary market.

JPMorgan Chase has no obligation to provide any quotation of bid or offer price(s) for the Securities which is favourable to any investor. Although application may be made for the Securities issued under the Base Prospectus to be admitted to trading on a stock exchange,

there can be no assurance that such application will be accepted, that any particular Securities will be so admitted or that an active trading market will develop. In case of a listing or admission to trading of the Securities there is no obligation to maintain a listing or admission to trading of the Securities during the term of the Securities. Accordingly, there can be no assurance as to the development or liquidity in any trading market for any particular Securities. Therefore, no responsibility or obligation is assumed towards potential investors for such development or liquidity of any trading market in such Securities.

Securities are also subject to selling restrictions and purchaser representations and requirements and transfer restrictions that may limit the ability of investors to resell or transfer them.

For these reasons, investors should not assume that a secondary market will exist for the Securities, and they should be prepared to hold their Securities until their scheduled maturity. The availability of any secondary market may be limited or non-existent and, if investors are able to sell their Securities, they may receive significantly less than they would otherwise receive by holding the Securities to their scheduled maturity.

JPMorgan Chase may stop showing tradeable prices on just the offer side for a number of different reasons, including but not limited to: international sanctions regimes, inability to hedge, being sold out of an instrument, a product delta would trigger Section 871(m) of the U.S. Internal Revenue Code tax burden on the investor or the Issuer or market maker.

3. Risks relating to inflation

Inflation is the general increase in prices and fall in the purchasing value of money over time. Due to the impact of inflation, the same amount of money will buy fewer goods and services over time.

The real return (or yield) on an investment in Securities will be reduced by inflation. Consequently, the higher the rate of inflation, the lower the real yield on a Security will be. If the inflation rate is equal to or greater than the yield under a Security, the real yield a holder of such Security will achieve will be zero or even negative. Accordingly, inflation may have a negative effect on the value of and return on the Securities, and Holders should consider the potential impact of inflation (including if the rate of inflation is anticipated to rise over the term of the Securities) before purchasing Securities.

Relatedly, if the terms and conditions of the relevant Securities provide that some or all of the principal shall be repaid at maturity, such scheduled principal repayment will not provide any protection from the effect of inflation over time and it may still be the case that the return on such Securities adjusted for inflation could be zero or even negative.

4. Hedging risks

It may not be possible to use the Securities as a perfect hedge against the market risk associated with investing in a Reference Asset.

If investors intend to invest in Securities to hedge against the market risk associated with investing in a Reference Asset, they should recognise the complexities of utilising Securities in this manner. For example, the value of the Securities may not exactly match the price of the Reference Asset. Due to fluctuating supply and demand for the Securities, there is no assurance that their value will match movements in the price of the Reference Asset. For these reasons, among others, it may not be possible to purchase or liquidate Securities in a portfolio at the prices used to calculate the value of any Reference Asset.

5. Risks in connection with the holding of Securities

There may be regulatory consequences to the Holder of holding Securities linked to a Reference Asset.

There may be regulatory and other consequences associated with the ownership by certain Holders in Securities linked to a Reference Asset. Investors must conduct their own

investigation into their regulatory position with respect to a potential investment in Securities, and JPMorgan Chase assumes no obligation or liability whatsoever to investors in such regard.

G. RISK FACTORS ASSOCIATED WITH TAXATION AND REGULATION OF THE SECURITIES

In this category, the material and specific risks associated with taxation and regulation of the Securities are described. The risks are classified according to their materiality based on the assessment of the Issuer. The most material risks are mentioned first.

1. Risks associated with taxation of the Securities

1.1. Risks due to changes in tax law

Changes in tax law could adversely affect the value and/or the market value of the Securities or may change the tax treatment of the relevant Securities.

In the event of a tax deduction or withholding tax, the Holder may be forced to realise losses. This is the case if the amount to be paid by the Issuer for each Security is less than the amount of the capital invested to purchase the Security.

Tax law and practice are subject to change, possibly with retroactive effect. Such a change may result in a change in the tax assessment of the Securities issued or offered under the Base Prospectus compared to the view which the Holder had at the time of purchase. Holders therefore bear the risk that they may incorrectly assess the taxation of income from the purchase of the Securities. However, it is also possible that the taxation of income from the purchase of the Securities may change to the disadvantage of the Holders.

The Issuer will not pay "Additional Amounts" to Holders of Securities should withholding taxes become payable on payments of principal or interest by or within a Relevant Jurisdiction where:

- the Holder is a resident within that Relevant Jurisdiction; or
- "Gross up" is specified to be "not applicable" in the relevant Issue Specific Conditions; or
- one or more customary or other exceptions to the "Gross up" obligation applies.

In addition to the above circumstances, the Issuer will not pay "Additional Amounts" to Holders of Securities:

- in respect of any withholding taxes imposed pursuant to FATCA; or
- in respect of U.S. withholding taxes on payments treated as "dividend equivalent" payments under Section 871(m) of the U.S. Internal Revenue Code of 1986, as amended (the "**Code**") where:
 - "Gross up" is specified to be "not applicable" in the relevant Final Terms; or
 - "Gross up" is specified to be "applicable" in the relevant Issue Specific Conditions, but "Exclude Section 871(m) Taxes from Gross Up" is also specified to be applicable in the relevant Final Terms; or
 - in the reasonable determination of the Issuer, such withholding tax would not have been imposed but for the Holder or beneficial owner (or a related party thereof) engaging in one or more transactions (other than the mere purchase of the Security) whether or not in connection with the acquisition, holding or disposition of the Security that establishes the withholding obligation.
- in respect of any withholding taxes imposed otherwise than by a Relevant Jurisdiction; or

- one or more customary exceptions to the "Gross up" obligation applies.

Accordingly, in the above circumstances the return on the Securities will be reduced by the amount being withheld. In all other circumstances, the Issuer will pay Additional Amounts should withholding taxes become payable on payments of principal or interest by or within a Relevant Jurisdiction.

1.2. Termination right of the Issuer due to withholding tax

Payments to Holders in respect of the Securities and payments received by JPMSE may be subject to withholding taxes, which may give rise to a right for JPMSE to redeem or terminate the Securities early.

Under any of (a) U.S. tax legislation commonly known as the Foreign Account Tax Compliance Act, (b) analogous provisions of non-U.S. laws, (c) an intergovernmental agreement in furtherance of such legislation or laws, or (d) an individual agreement entered into with a taxing authority pursuant to such legislation or laws (collectively, "**FATCA**"), the Issuer or an intermediary may be required to withhold a withholding tax of 30 per cent. on payments made to certain Holders in respect of the relevant Securities. In particular, the withholding tax may apply to payments in respect of Securities made to a Non-U.S. Holder or beneficial owner that is not in compliance with applicable reporting and withholding obligations or that fails to provide ownership certifications and identifying information or, if applicable, for waivers of any law prohibiting the disclosure of such information to a taxing authority (such Holders and beneficial owners, "**Recalcitrant Holders**"). In the event that an Issuer or an intermediary is required to deduct a withholding tax under FATCA, no additional amounts will be paid to the Holder or beneficial owner of the Security.

Under FATCA, the Issuer may also be subject to a withholding tax of 30 per cent. on certain payments made to it if it does not comply with the relevant requirements under FATCA. In the event that the Issuer determines that there is a substantial likelihood that payments made to it would be subject to withholding tax under FATCA or if the Issuer otherwise determines that there is a substantial likelihood that it will violate any requirement of, or an agreement entered into with a taxing authority with respect to, FATCA, **it is possible that a portion or all Securities of a series issued by the Issuer will be redeemed or terminated at the Early Payment Amount (which amount may be less than the purchase price paid by the Holder, depending on the fair market value of the Securities at the relevant time and, where specified in the terms of the Securities, associated costs of the Issuer to be deducted).**

It is anticipated that the Issuer will comply with any due diligence, reporting and withholding requirements under FATCA. Accordingly, the Issuer may be required, among other things, to withhold 30 per cent. on payments made to Holders that are non-compliant FFIs or to Recalcitrant Holders. Should the Issuer or an intermediary withhold on payments pursuant to FATCA, there will be no "gross up" (or any other additional amount) payable by way of compensation to such Holders or beneficial owners for the amounts deducted.

2. Risks in relation to the regulation and reform of benchmarks

The regulation and reform of certain published rates, indices and other values or "benchmarks" may adversely affect the value of and return on Securities linked to such values or benchmark.

A number of major interest rates, other rates, indices and other published benchmarks, including the London Interbank Offered Rate ("**LIBOR**") and the Euro Interbank Offered Rate ("**EURIBOR**") are the subject of ongoing national and international monitoring and regulatory reforms. This has led to the discontinuation or modification of most LIBOR rates and may cause other benchmarks to be discontinued, to be modified, or to be subject to other changes in the future. Any such consequence could have a material adverse effect on the value of and return on Securities the payout of which is dependent on the performance of any such benchmark.

The Regulation (EU) 2016/1011 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds (the "**EU Benchmarks Regulation**") and the EU Benchmarks Regulation as it forms part of UK domestic law by virtue of the European Union (Withdrawal) Act 2018 (as amended) and regulations made thereunder (the "**UK Benchmarks Regulation**", and together with the EU Benchmarks Regulation, the "**Benchmarks Regulations**") are a key element of the ongoing regulatory reform in, respectively, the EU and the UK.

In addition to "critical benchmarks" such as LIBOR and EURIBOR, other interest rates, foreign exchange rates, and indices, including equity, commodity and "proprietary" indices or strategies, will in most cases be within scope of one or both versions of the Benchmarks Regulations as "benchmarks" where they are used to determine the amount payable under, or the value of, certain financial instruments (including (i) in the case of the EU Benchmarks Regulation, Securities listed on an EU regulated market or an EU multilateral trading facility ("**MTF**") and (ii) in the case of the UK Benchmarks Regulation, Securities listed on a UK recognised investment exchange or a UK MTF), and in a number of other circumstances.

The EU Benchmarks Regulation applies to the contribution of input data to a benchmark, the administration of a benchmark, and the use of a benchmark in the EU. Amongst other things, the Benchmarks Regulation requires EU benchmark administrators to be authorised or registered as such and to comply with extensive requirements relating to benchmark administration. It also prohibits (subject to transitional provisions) certain uses by EU supervised entities of (a) benchmarks provided by EU administrators which are not authorised or registered in accordance with the EU Benchmarks Regulation and (b) benchmarks provided by non-EU administrators where (i) the administrator's regulatory regime has not been determined to be "equivalent" to that of the EU, (ii) the administrator has not been recognised in accordance with the EU Benchmarks Regulation, and (iii) the benchmark has not been endorsed in accordance with the EU Benchmarks Regulation.

The UK Benchmarks Regulation imposes substantially the same obligations and restrictions as the EU Benchmarks Regulation, but has a narrower geographical scope. The UK Benchmarks Regulation applies to the contribution of input data to a benchmark, the administration of a benchmark, and the use of a benchmark in the United Kingdom. In-scope entities include UK benchmark administrators and UK supervised entities.

The ESMA maintains a public register of EU-approved benchmark administrators and non-EU benchmarks pursuant to the EU Benchmarks Regulation (the "**ESMA Register**"). Benchmarks and benchmark administrators which were approved by the UK Financial Conduct Authority ("**FCA**") prior to 31 December 2020 were removed from the ESMA Register on 1 January 2021.

Similarly, the FCA maintains a separate public register of FCA-approved benchmark administrators and non-UK benchmarks pursuant to the UK Benchmarks Regulation (the "**UK Register**"). Benchmarks and benchmark administrators which were approved by the FCA prior to 31 December 2020 are included on the UK Register.

The EU Benchmarks Regulation and/or the UK Benchmarks Regulation could have a material adverse impact on the value of and return on Securities linked to a benchmark. For example:

- a rate or index which is a "benchmark" within the meaning of the EU Benchmarks Regulation may not be used in certain ways by an EU supervised entity if (subject to applicable transitional provisions) its administrator does not obtain authorisation or registration from its EU competent authority (or, if a non-EU entity, does not satisfy the "equivalence" conditions and is not "recognised" by an EU competent authority, pending an equivalence decision, and does not have the relevant benchmark "endorsed" by an EU supervised entity). If the benchmark administrator does not obtain or maintain (as applicable) such authorisation or registration (or, if a non-EU entity, "equivalence" is not available and neither recognition nor endorsement is obtained) (this is referred to as an "**Administrator/Benchmark Event**"), then the Securities may be redeemed prior to maturity;

- similarly, a rate or index which is a "benchmark" within the meaning of the UK Benchmarks Regulation may not be used in certain ways by an UK supervised entity if (subject to applicable transitional provisions) its administrator does not obtain authorisation or registration from the FCA (or, if a non-UK entity, does not satisfy the "equivalence" conditions and is not "recognised" by the FCA, pending an equivalence decision, and does not have the relevant benchmark "endorsed" by a UK supervised entity). If the benchmark administrator does not obtain or maintain (as applicable) such authorisation or registration (or, if a non-UK entity, "equivalence" is not available and neither recognition nor endorsement is obtained) (this is referred to as an "**Administrator/Benchmark Event**"), then the Securities may be redeemed prior to maturity;
- if the Reference Asset is a benchmark under the Benchmark Regulation and it would be unlawful or contradictory to any applicable licensing requirements for the Calculation Agent to determine the level or other value of such Reference Asset or make any other determination in respect of the Securities which it would otherwise be obliged to do so pursuant to the Conditions, then the Securities may be redeemed prior to maturity; and
- the methodology or other terms of the benchmark could be changed in order to comply with the requirements of the applicable Benchmarks Regulation or mandatory substitution of a benchmark with a replacement benchmark could be imposed by statute and such changes could reduce or increase the rate or level or affect the volatility of the published rate or level, and (depending on the type of the particular Securities) could lead to adjustments to the terms of the Securities, including potentially determination by the Calculation Agent of the rate or level in its reasonable discretion.

Ongoing national and international regulatory reforms and the increased regulatory scrutiny of benchmarks generally could increase the costs and risks of administering or otherwise participating in the setting of a benchmark and complying with any applicable regulations or requirements. Such factors may discourage market participants from continuing to administer or contribute to benchmarks, trigger changes in the rules or methodologies used in respect of benchmarks, and/or lead to the disappearance of benchmarks. This could result in (i) the substitution of replacement rates for such benchmark(s), (ii) adjustments to the terms of the relevant Securities, (iii) early redemption of the relevant Securities, (iv) discretionary valuation of the rate by the Calculation Agent and/or (v) other consequences for Securities linked to any such benchmark(s). Any such consequence could have a material adverse effect on the value of and return on any Securities linked to, referencing, or otherwise dependent (in whole or in part) upon, a benchmark.

Regulatory authorities and central banks are strongly encouraging the transition away from interbank offered rates, or "**IBORs**", and have identified risk-free rates to replace IBORs as primary benchmarks. This includes (amongst others):

- for sterling LIBOR, the Sterling Overnight Index Average ("**SONIA**"), which is now established as the primary sterling interest rate benchmark;
- for US dollar LIBOR, the Secured Overnight Financing Rate ("**SOFR**"), to be established as the primary US dollar interest rate benchmark; and
- for EONIA and EURIBOR, the Euro Short-Term Rate ("**€STR**") as the new euro risk-free rate.

The reform and replacement of IBORs with risk-free rates may cause the relevant IBOR to perform differently than in the past, to disappear entirely, or have other consequences that cannot be predicted. These risk-free rates have a different methodology and other important differences from the IBORs that they are to replace. For example, many potential replacement rates are backward-looking, rather than forward-looking, and can only be calculated at the end of the corresponding calculation period.

Any of these developments could have a material adverse effect on the value of and return on Securities linked to any such rates.

In summary, as at the date of this Base Prospectus with regard to the transition from IBORs to risk-free rates:

- **GBP LIBOR:** GBP LIBOR is now only available in one-month, three-month and six-month tenors, on the basis of a Synthetic LIBOR methodology, and may only be used in legacy contracts. The Working Group on Sterling Risk-Free Rates, as mandated by the Bank of England and the FCA, has driven a broad-based transition to SONIA across sterling bond, loan and derivative markets, so that SONIA is now established as the primary sterling interest rate benchmark.
- **USD LIBOR:** As described above, certain USD LIBOR tenors are still being published but their use in new financial contracts is widely restricted. On 22 June 2017, the Alternative Reference Rates Committee (the "ARRC"), convened by the Board of Governors of the Federal Reserve System and the Federal Reserve Bank of New York (the "FRBNY"), identified SOFR, a broad US treasuries repurchase financing rate published by the FRBNY, as the rate that represents best practice for use in new US dollar derivatives and other financial contracts. SOFR is a broad measure of the cost of borrowing cash overnight collateralised by US treasury securities.
- **EURIBOR:** EURIBOR has been reformed such that it is based on a hybrid methodology. On 13 September 2018, the Working Group on Euro Risk-Free Rates recommended €STR as the new euro risk-free rate, and the European Central Bank began publishing €STR on 2 October 2019. In addition, in May 2021, the Working Group published a set of guiding principles for fallback provisions in new EURIBOR-referencing contracts and financial instruments (including bonds) to address, among other things, the potential future discontinuation of EURIBOR.
- **Other IBORs:** Similar initiatives are underway in respect of IBORs in various other currencies, including Japanese yen (TIBOR), Hong Kong dollar (HIBOR), Australian dollar (BBSW), Canadian dollar (CDOR), and Swiss franc (CHF LIBOR), which was discontinued at the end of 2021, to transition to identified alternative risk-free rates.

3. **Discontinuance and/or loss of representativeness of Interbank Offered Rates ("IBORs") and related rates**

(b) ***Risks relating to replacement of IBORs with 'risk-free rates'***

The 'risk-free rates' have different calculation methodologies and other important differences from the IBORs they will eventually replace. Market terms for Securities linked to such 'risk-free rates' may evolve over time, and trading prices of such Securities may be lower than those of later-issued Securities as a result. Furthermore, if the relevant 'risk-free rate' (such as, for example, SONIA or SOFR) fails to gain market acceptance or does not prove to be widely used in the capital markets, the trading price of Securities linked to 'risk-free rates' may be lower than those of Securities linked to rates that are more widely used and as a result, Security Holders may not be able to sell their Securities at all or may not be able to sell their Securities at prices that will provide Holders with a yield comparable to similar investments that have a developed secondary market, and may consequently suffer from increased pricing volatility and market risk.

To the extent that any Securities reference an IBOR, Holders should understand (i) what fallbacks might apply in place of such rate (if any), (ii) when those fallbacks will be triggered and (iii) what unilateral amending rights (if any) on the part of the Issuer or Calculation Agent (as applicable) apply under the terms and conditions of such Securities, as the effect of any of these could have a material adverse effect on the value of and return on Securities.

(c) ***Risks relating to the developing markets for SONIA, SOFR, €STR and TONA and potential impact on performance and returns***

The market continues to develop in relation to adoption of SONIA, SOFR, €STR and Toyko Overnight Average Rate ("TONA") as reference rates in the capital markets for sterling, U.S. dollar or euro bonds, respectively, and their adoption as alternatives to the relevant interbank offered rates. The market or a significant part thereof may adopt an application of 'risk-free

rates' that differs significantly from that set out in the Conditions and used in relation to Securities that reference such 'risk-free rates' issued hereunder. For example, market participants and relevant working groups are exploring alternative reference rates based on 'risk-free rates', including term SONIA, SOFR, €STR and TONA reference rates (which seek to measure the market's forward expectation of an average SONIA, SOFR, €STR or TONA over a designated term), and it is possible that market participants may seek to apply such compounded rate or term rates for capital markets issuances.

The development of new 'risk-free rates' could result in reduced liquidity or increased volatility, or could otherwise affect the market price of any Securities that reference a 'risk-free rate' issued hereunder from time to time.

The new 'risk-free rates' may have no established trading market, and an established trading market may never develop or may not be very liquid. Market terms for Securities indexed to the new 'risk-free rates' may evolve over time, and may lead to impacts on trading prices and values, and such Securities may not be able to be sold or may not be able to be sold at prices that will provide a yield comparable to similar investments that have a developed secondary market, and may consequently suffer from increased pricing volatility and market risk.

4. Risks relating to USD LIBOR

USD LIBOR may be replaced by a successor or substitute interest rate; the occurrence of a Benchmark Transition Event and the potential reliance on the Secured Overnight Financing Rate to determine the Reference Rate may adversely affect the return on and the market value of the Securities; uncertainty as to some of the potential benchmark replacements and any benchmark replacement conforming changes we make may adversely affect the return on and the market value of the Securities.

If the Calculation Agent determines that a Benchmark Transition Event and its related Benchmark Replacement Date have occurred with respect to USD LIBOR, then a Benchmark Replacement will be selected by the Calculation Agent in accordance with the provisions of Section 3(12) of the General Conditions. The selection of a Benchmark Replacement, and any decisions, determinations or elections made by the Calculation Agent or by the Issuer in connection with implementing a Benchmark Replacement with respect to the Securities in accordance with the provisions of Section 3(12) of the General Conditions, could result in adverse consequences to the relevant Reference Rate on the Securities during the applicable Coupon Period or other period or time, as the case may be, which could adversely affect the return on, value of and market for the Securities. Further, there is no assurance that the characteristics of any Benchmark Replacement will be similar to USD LIBOR, or that any Benchmark Replacement will produce the economic equivalent of USD LIBOR.

In June 2017, the ARRC announced the SOFR as its recommended alternative to USD LIBOR. However, because the SOFR is a broad U.S. Treasury repo financing rate that represents overnight secured funding transactions, it differs fundamentally from the LIBOR. For example, the SOFR is a secured overnight rate, while USD LIBOR is an unsecured rate that represents interbank funding over different maturities. In addition, because SOFR is a transaction-based rate, it is backward-looking, whereas USD LIBOR is forward-looking. Because of these and other differences, there can be no assurance that SOFR will perform in the same way as USD LIBOR would have done at any time, and there is no guarantee that it is a comparable substitute for USD LIBOR.

The Issuer or J.P. Morgan Securities plc may be the Calculation Agent for the Securities. In the future, the Issuer may appoint another firm or another affiliate of the Issuer as the Calculation Agent. If the Calculation Agent fails to make any determination, decision or election that it is required to make pursuant to the provisions of Section 3(12) of the General Conditions, then the Issuer will make that determination, decision or election.

Under the provisions of Section 3(12) of the General Conditions, if a Benchmark Transition Event and its related Benchmark Replacement Date occur with respect to USD LIBOR, and if the Calculation Agent cannot determine the relevant USD LIBOR rate by means of interpolating from other tenors of USD LIBOR, then the Reference Rate in relation to certain Securities during the applicable Coupon Period or other period or time, as the case may be, will be determined based on the SOFR (unless a Benchmark Transition Event and its related Benchmark Replacement Date also occur with respect to the Benchmark Replacements that are linked to SOFR, in which case the Reference Rate will be based on the next-available Benchmark Replacement). In the following discussion of SOFR, references to SOFR-linked Securities shall mean the Securities at any time when the Reference Rate in relation to Securities is or will be determined based on SOFR.

Because SOFR is published by Federal Reserve Bank of New York ("**FRBNY**") based on data received from other sources, the Issuer has no control over its determination, calculation or publication. There can be no assurance that SOFR will not be discontinued or fundamentally altered in a manner that is materially adverse to the interests of investors in the SOFR-linked Securities. If the manner in which SOFR is calculated is changed, that change may result in a reduction of the payments on the SOFR-linked Securities, which may adversely affect the trading prices of the SOFR-linked Securities. If the rate at which interest or coupon accrues on the Securities during the applicable Coupon Period or other period, as the case may be, on any day or for any Coupon Period or other period, as the case may be, declines to zero or becomes negative, no interest or coupon will be payable on the Securities with respect to that day or Coupon Period or other period, as the case may be.

SOFR was developed for use in certain U.S. dollar derivatives and other financial contracts as an alternative to USD LIBOR in part because it is considered to be a good representation of general funding conditions in the overnight U.S. Treasury repo market. However, as a rate based on transactions secured by U.S. Treasury securities, it does not measure bank-specific credit risk and, as a result, is less likely to correlate with the unsecured short-term funding costs of banks. This may mean that market participants would not consider SOFR to be a suitable substitute or successor for all of the purposes for which USD LIBOR historically has been used (including, without limitation, as a representation of the unsecured short-term funding costs of banks), which may, in turn, lessen its market acceptance. Any failure of SOFR to gain market acceptance could adversely affect the return on, value of and market for SOFR-linked Securities.

FRBNY started publishing SOFR in April 2018. FRBNY has also started publishing historical indicative Secured Overnight Financing Rates dating back to 2014, although such historical indicative data inherently involves assumptions, estimates and approximations. Investors should not rely on such historical indicative data or on any historical changes or trends in SOFR as an indicator of the future performance of SOFR. Since the initial publication of SOFR, daily changes in the rate have, on occasion, been more volatile than daily changes in comparable benchmark or market rates, and SOFR over the term of the notes may bear little or no relation to the historical actual or historical indicative data. In addition, the return on and value of the SOFR-linked Securities may fluctuate more than floating rate debt securities that are linked to less volatile rates.

SOFR-linked Securities will likely have no established trading market when issued, and an established trading market for SOFR-linked Securities may never develop or may not be very liquid. Market terms for debt securities that are linked to SOFR, such as the spread over the base rate reflected in the interest rate provisions, may evolve over time, and as a result, trading prices of the SOFR-linked notes may be lower than those of later-issued debt securities that are linked to SOFR. Similarly, if SOFR does not prove to be widely used in debt securities that are similar or comparable to the SOFR-linked notes, the trading price of the SOFR-linked notes may be lower than those of debt securities that are linked to rates that are more widely

used. Investors in the SOFR-linked notes may not be able to sell the SOFR-linked notes at all or may not be able to sell the SOFR-linked notes at prices that will provide them with a yield comparable to similar investments that have a developed secondary market, and may consequently suffer from increased pricing volatility and market risk.

The manner of adoption or application of reference rates based on SOFR in the bond markets may differ materially compared with the application and adoption of SOFR in other markets, such as the derivatives and loan markets. Investors should carefully consider how any potential inconsistencies between the adoption of reference rates based on SOFR across these markets may impact any hedging or other financial arrangements which they may put in place in connection with any acquisition, holding or disposal of USD LIBOR or SOFR-linked Securities.

The Benchmark Replacements specified in the provisions of Section 3(12) of the General Conditions include Term SOFR, a forward-looking term rate which will be based on SOFR. Term SOFR is currently being developed under the sponsorship of FRBNY, and there is no assurance that the development of Term SOFR will be completed. If a Benchmark Transition Event and its related Benchmark Replacement Date occur with respect to USD LIBOR, and if the Calculation Agent cannot determine the relevant USD LIBOR rate by means of interpolating from other tenors of USD LIBOR, and, at that time, a form of Term SOFR has not been selected or recommended by the Relevant Governmental Body, then the next-available Benchmark Replacement under the provisions of Section 3(12) of the General Conditions will be used to determine the Reference Rate in relation to Securities during the applicable Coupon Period or other period or at the applicable time, as the case may be, for the next applicable Coupon Period or other period or time, as the case may be, and all subsequent Coupon Periods or other periods or times, as the case may be, (unless a Benchmark Transition Event and its related Benchmark Replacement Date occur with respect to that next-available Benchmark Replacement).

Under the provisions of Section 3(12) of the General Conditions, if a particular Benchmark Replacement or Benchmark Replacement Adjustment cannot be determined, then the next-available Benchmark Replacement or Benchmark Replacement Adjustment will apply. These replacement rates and adjustments may be selected or formulated by (i) the Relevant Governmental Body (such as the Alternative Reference Rates Committee of FRBNY), (ii) ISDA or (iii) in certain circumstances, the Issuer. In addition, the provisions of Section 3(12) of the General Conditions expressly authorise each of the Issuer and the Calculation Agent to make Benchmark Replacement Conforming Changes with respect to, among other things, the determination of Coupon Periods or other periods, as the case may be, and the timing and frequency of determining rates and making payments of interest or coupon. The application of a Benchmark Replacement and Benchmark Replacement Adjustment, and any implementation of Benchmark Replacement Conforming Changes, could result in adverse consequences to the amount of payments on the Securities during the applicable Coupon Period or other period or at the applicable time, as the case may be, which could adversely affect the return on, value of and market for the Securities. Further, there is no assurance that the characteristics of any Benchmark Replacement will be similar to the then-current USD-LIBOR rate that it is replacing, or that any Benchmark Replacement will produce the economic equivalent of the then-current USD-LIBOR rate that it is replacing.

SOFR is published by the FRBNY and is intended to be a broad measure of the cost of borrowing cash overnight collateralised by Treasury securities. FRBNY reports that SOFR includes all trades in the Broad General Collateral Rate, plus bilateral Treasury repurchase agreement ("**repo**") transactions cleared through the delivery-versus-payment service offered by the Fixed Income Clearing Corporation (the "**FICC**"), a subsidiary of The Depository Trust & Clearing Corporation ("**DTCC**"). SOFR is filtered by FRBNY to remove a portion of the foregoing transactions considered to be "specials". According to FRBNY, "specials" are repos

for specific-issue collateral which take place at cash-lending rates below those for general collateral repos because cash providers are willing to accept a lesser return on their cash in order to obtain a particular security.

FRBNY reports that SOFR is calculated as a volume-weighted median of transaction-level tri-party repo data collected from The Bank of New York Mellon, which currently acts as the clearing bank for the tri-party repo market, as well as General Collateral Finance Repo transaction data and data on bilateral Treasury repo transactions cleared through the FICC's delivery-versus-payment service. FRBNY notes that it obtains information from DTCC Solutions LLC, an affiliate of DTCC.

FRBNY currently publishes SOFR daily on its website at <https://apps.newyorkfed.org/markets/autorates/sofr>. FRBNY states on its publication page for SOFR that use of SOFR is subject to important disclaimers, limitations and indemnification obligations, including that FRBNY may alter the methods of calculation, publication schedule, rate revision practices or availability of SOFR at any time without notice. Information contained in the publication page for SOFR is not incorporated by reference in, and should not be considered part of, this Base Prospectus.

5. Risk in relation to compliance with obligations applicable under the Short Selling Regulation or the UK Short Selling Regulation (as applicable)

Purchase of Securities may cause an investor to reach a threshold where disclosure of a net short position is required under Regulation (EU) No 236/2012.

Under (i) Regulation (EU) No 236/2012, as amended (the "**Short Selling Regulation**") (ii) and for purposes of the UK only, the Short Selling Regulation as forms part of UK domestic law by virtue of the EUWA (as amended, the "**UK Short Selling Regulation**"), Holders of Securities holding a net short position in relation to a particular share to which the applicable regulation applies (as described below) or a debt instrument issued by a sovereign issuer to which the applicable regulation applies (as described below) in the case where the investor has reached a threshold in relation to such position, must make a disclosure thereof to the relevant competent authority. The Securities may include short positions in such shares and/or debt instruments and such short positions may fluctuate from time to time. Purchasing and holding the Securities may therefore, when taken together with the investor's other holdings of relevant shares and/or debt instruments issued by a sovereign issuer, cause the Holder to reach one or more thresholds where disclosure, to a relevant competent authority, would be required under the Short Selling Regulation or the UK Short Selling Regulation, as the case may be. There is a similar requirement to make public disclosure of net short positions in relation to shares when the public disclosure thresholds under the Short Selling Regulation or the UK Short Selling Regulation, as the case may be, are met.

A net short position is the position remaining after deducting any long position held in relation to the shares or the debt instrument from any short position in relation to such shares or debt instrument, in accordance with the Short Selling Regulation or the UK Short Selling Regulation, as the case may be.

For the purposes of the Short Selling Regulation or the UK Short Selling Regulation, as the case may be, a short position will include (a) the short sale of a share or a debt instrument as well as (b) entering into a transaction which creates or relates to a financial instrument other than that referred to in (a) where the effect or one of the effects of the transaction is to confer a financial advantage on the person entering into that transaction in the event of a decrease in the price or value of the share or debt instrument.

For the purposes of the Short Selling Regulation or the UK Short Selling Regulation, as the case may be, a long position will include (a) the holding of a share or a debt instrument as well as (b) entering into a transaction which creates or relates to a financial instrument other than that referred to in (a) where the effect or one of the effects of the transaction is to confer a

financial advantage on the person entering into that transaction in the event of an increase in the price or value of the share or debt instrument.

The calculation of a short or long position will include any position held by the relevant person indirectly, including through or by way of any index, basket of securities or any interest in any exchange traded fund or similar entity, determined by the person in question acting reasonably having regard to publicly available information as to the composition of the relevant index or basket of securities, or of the interests held by the relevant exchange traded fund or similar entity. Shares in relation to which the Short Selling Regulation or the UK Short Selling Regulation, as the case may be, applies are those which are admitted to trading in the EU or the UK, respectively, although there is an exemption where the primary listing is outside the EU or the UK, respectively, (as determined by the relevant competent authority). Debt instruments in relation to which the Short Selling Regulation or the UK Short Selling Regulation, as the case may be, applies are those issued by EU sovereigns or the UK sovereign, respectively, including any special purpose vehicle ("SPV") established by such a sovereign, as well as the European Investment Bank and any EU bail-out fund.

It is the investor's responsibility to monitor its net short positions and to comply with the obligations applicable under the Short Selling Regulation or the UK Short Selling Regulation, as the case may be.

H. RISK FACTORS ASSOCIATED WITH CONFLICTS OF INTEREST

The Issuer and other companies of JPMorgan Chase may enter into transactions or undertake transactions in their general business operations which are contrary to the interests of the Holders which do not take these into account. In this category, investors will find a description of those specific and material risks in connection with conflicts of interest. The risks in this category are classified according to their materiality based on the assessment of the Issuer. The most material risks are mentioned first.

Risks in relation to conflicts of interest

The Issuer and other companies of JPMorgan Chase are subject to various potential conflicts of interest in respect of the Securities, which could have an adverse effect on the price of the Securities and the Settlement Amount.

The Issuer and other companies of JPMorgan Chase are subject to various potential conflicts of interest in respect of the Securities, which could have an adverse effect on the price of the Securities and the Settlement Amount. In particular the following aspects should be taken into account:

- **An offering of Securities does not constitute an expression of the view of JPMorgan Chase, or a recommendation by JPMorgan Chase of, any Reference Asset or the constituents or components of any Reference Asset, including through an investment in the Securities**

Investors should not take the Base Prospectus or any particular offering of Securities thereunder as an expression of the views of JPMorgan Chase about how any Reference Asset or the constituents or components of any Reference Asset will perform in the future or as a recommendation to invest (directly or indirectly, by taking a long or short position) in any Reference Asset or the constituents or components of any Reference Asset, including through an investment in the Securities. As a global financial institution, JPMorgan Chase (through various JPMorgan Chase entities) may, and often do, have positions (long, short or both) in one or more Reference Assets or constituents or components of any Reference Asset that conflict with an investment in the Securities (see Section *JPMorgan Chase may have economic interests that are adverse to those of the Holders of the Securities as a result of JPMorgan Chase's business activities* of the Risk Factors below). Investors should undertake an independent determination of whether an investment in the Securities is suitable in light of their specific investment objectives, risk tolerance and financial resources.

- **JPMorgan Chase may have economic interests that are adverse to those of the Holders of the Securities as a result of JPMorgan Chase's hedging and other trading activities**

In anticipation of the sale of the Securities, the Issuer expects to hedge its obligations under the Securities through certain JPMorgan Chase affiliates or unaffiliated counterparties by taking positions in instruments the value of which is derived from one or more Reference Assets or the constituents or components of such Reference Assets or other assets. The Issuer or the relevant hedging entity may also adjust its hedge by, among other things, purchasing or selling instruments the value of which is derived from a Reference Asset or the constituents or components of such Reference Asset or other assets at any time and from time to time, and close out or unwind our hedge by selling any of the foregoing on or before any valuation date under the Securities. JPMorgan Chase cannot give investors any assurances that its hedging activities will not negatively affect the price of the Reference Asset or the performance of the Securities. This hedging activity may present a conflict of interest between the interest of an investor as a Holder of the Securities and the interests that JPMorgan Chase entities have in executing, maintaining and adjusting hedge transactions. These hedging activities could also affect the price at which the Dealer (or an affiliate) willing to purchase the investors Securities in the secondary market (if any). The hedging entities expect to make a profit. Because hedging the Issuer's obligations entails risk and may be influenced by market forces beyond JPMorgan Chase's control, this hedging may result in a profit that is more or less than expected, or it may result in a loss. The Dealer and other JPMorgan Chase entities are also likely to trade the Reference Assets or the constituents or components of any Reference Asset on a regular basis (taking long or short positions or both), for their accounts, for other accounts under their management and to facilitate transactions, including block transactions, on behalf of customers. While a particular outcome cannot be predicted, any of these hedging activities or other such trading activities could potentially increase and/or decrease the price of the Reference Asset on a valuation date, which could have a material adverse impact on the return on the Securities. It is possible that these hedging or trading activities could result in substantial returns for the relevant JPMorgan Chase hedging entity (or entities) while the value of the Securities declines.

- **JPMorgan Chase may have economic interests that are adverse to those of the Holders of the Securities as a result of JPMorgan Chase's business activities**

JPMorgan Chase may currently or from time to time engage in business with the issuer of a Reference Asset which is a Share or companies the equity securities of which are included in an Index, held by an ETF, included in a relevant Index, produce, trade or otherwise be active in relation to a commodity or constituent of a commodity index (the "underlying companies"), including extending loans to, making equity investments in or providing advisory services to the underlying companies, including merger and acquisition advisory services. In the course of this business, JPMorgan Chase may acquire non-public information about the underlying companies, and will not disclose any such information to the investors. In addition, JPMorgan Chase may publish research reports or otherwise express views about the underlying companies. Any prospective purchaser of Securities should undertake an independent investigation of each of the underlying companies as in its judgment is appropriate to make an informed decision with respect to an investment in the Securities. JPMorgan Chase does not make any representation or warranty to any purchaser of Securities with respect to any matters whatsoever relating to its business with the underlying companies.

Additionally, JPMorgan Chase may serve as issuer, agent or underwriter for issuances of other securities or financial instruments with returns linked or related to changes in the level or price, as applicable, of a share, a commodity, an index, a fund or an ETF, the securities included in an index or the securities, commodities or futures contracts held by a fund or an ETF. To the extent that JPMorgan Chase serves as issuer, agent or underwriter for these securities or financial instruments, JPMorgan Chase's interests with respect to these securities or financial instruments may be adverse to those of the Holders of the Securities. By introducing competing products into the marketplace in this manner, JPMorgan Chase (including any JPMorgan Chase entities) could adversely affect the value of the Securities.

In addition, JPMorgan Chase may itself be involved in the management of an ETF that serves as Reference Asset for a Security issued by the Issuer. In such a case, JPMorgan Chase may

have interests that are adverse to the interests of the Holders of the Securities and the performance of the ETF may be affected by decisions of JPMorgan Chase, which in turn may adversely affect the value of the Securities linked to such Fund.

JPMorgan Chase may currently or from time to time engage in trading activities related to the currencies in which the equity securities underlying an index, a fund or an ETF are denominated. If currency exchange rate calculations are involved in the calculation of the closing levels of an Index or the net asset values or closing prices of a Fund or an ETF, these trading activities could potentially affect the exchange rates with respect to the currencies in which the equity securities underlying that index, fund or ETF are denominated, the closing levels of that index or the net asset values or closing prices of that fund or ETF and, accordingly, the value of the Securities.

In the course of its currency trading activities, JPMorgan Chase may acquire material non-public information with respect to currency exchange rates, and will not disclose any such information to the investor. In addition, JPMorgan Chase may produce and/or publish research reports, or otherwise express views, with respect to expected movements in currency exchange rates. JPMorgan Chase does not make any representation or warranty to any purchaser of Securities with respect to any matters whatsoever relating to future currency exchange rate movements and any prospective purchaser of the Securities should undertake an independent investigation of the currencies in which securities underlying an Index or ETF are denominated and their related exchange rates as, in its judgment, is appropriate to make an informed decision with respect to an investment in the Securities.

- **JPMorgan Chase may have economic interests that are adverse to those of the Holders of the Securities due to the role of its affiliates as calculation agent**

One of the Issuer or J.P. Morgan Securities plc will act as the calculation agent, unless otherwise stated in the relevant Issue Specific Conditions. The calculation agent will make all determinations and exercise discretionary authorities under the terms and conditions of the Securities (as described in Section E.4 of the Risk Factors above). In performing these duties, the Issuer or J.P. Morgan Securities plc (or such other entity appointed as the calculation agent, as the case may be) may have interests adverse to the interests of the Holders of the Securities, which may affect the investors return on the Securities.

- **JPMorgan Chase may have published research, expressed opinions or provided recommendations that are inconsistent with investing in or holding the Securities, and may do so in the future. Any such research, opinions or recommendations could affect the value of any relevant Reference Asset, and, therefore, the market value of the Securities**

JPMorgan Chase publish research from time to time on underlying companies, financial markets and other matters that may influence the value of the Securities, or express opinions or provide recommendations that are inconsistent with purchasing or holding the Securities. JPMorgan Chase may have published or may publish research or other opinions that call into question the investment view implicit in an investment in the Securities. Any research, opinions or recommendations expressed by JPMorgan Chase may not be consistent with each other and may be modified from time to time without notice. Investors should make their own independent investigation of the merits of investing in the Securities and any Reference Asset to which the Securities are linked.

III. GENERAL DESCRIPTION OF THE PROGRAMME AND THE SECURITIES

1. Issuer

J.P. Morgan SE ("**JPMSE**" or the "**Issuer**") may from time to time under the Programme, subject to compliance with all relevant laws, regulations and directives, issue (i) Notes and (ii) Warrants or (iii) Certificates (together, the "**Securities**").

2. Listing and admission to trading

The Issuer may introduce or apply for admission of the Securities to one or more stock exchange(s) or multilateral trading system(s) or regulated or unregulated market(s). The Issuer may also issue Securities which are not admitted to trading or listed on any market.

Securities of the same class may have been admitted to trading on the same or another market already.

Information in relation to an intended listing will be set out in the applicable Final Terms. Furthermore, information concerning a public offer attaching to the issue of the Securities will be set out in the applicable Final Terms, if any.

In the case of admission to trading and/or listing, the applicable Final Terms will contain the Minimum Trading Size, if any.

JPMorgan Chase intends to quote bid and ask prices for the Securities of an issue on a regular basis under normal market conditions. However, JPMorgan Chase does not commit and is under no obligation legal or otherwise to quote bid and ask prices for the Securities of an issue.

3. Interests of natural and legal persons involved in the issue

For information about the interests of natural or legal persons involved in the issue as well as potential conflicts of interests resulting from this, please see Section II.H (*Risk Factors associated with conflicts of interest*, page 91) in the Base Prospectus and under "Interests of natural and legal persons involved in the issue/offer" under "Other information" in the applicable Final Terms.

4. Types of Securities

Under this Programme the Issuer may issue warrants, certificates and notes, which together are known as "Securities". Securities may have a maturity or may be issued without a fixed maturity. Securities may be listed and traded on a regulated market, or not listed or traded. Upon maturity of the Security the investor may receive a cash amount or delivery of the Reference Asset. If stipulated in the applicable Final Terms the Securities also provide Holders with an entitlement for the payment of a coupon.

The form and content of the Securities and the rights and duties of the Issuer and the Holders will be governed by German law. The Specified Currency of the respective issue will be stipulated in the applicable Final Terms.

The classification and ranking of the Securities is set out in Section 1 of the General Conditions (*Security Right, Status, Currency Conversion and Rounding, Definitions*).

5. Reference Assets

The Securities are derivative instruments. The Settlement Amount is dependent on the performance of the relevant Reference Asset. The Securities may be linked to:

- a share or a depositary receipt representing a share or an exchange traded fund (ETF) ("**Share Linked Securities**");
- an equity index ("**Index Linked Securities**");

- a commodity ("**Commodity Linked Securities**");
- a futures contract ("**Futures Contract Linked Securities**"); or
- a foreign exchange rate ("**FX Linked Securities**").

The applicable Final Terms will specify the relevant Reference Asset and specify where information about Reference Asset can be found, particularly about its past and future performance and its volatility (see section "Reference Asset" under "Other information" in the applicable Final Terms). Any such Reference Asset may constitute a benchmark for the purposes of the Benchmark Regulation (Regulation (EU) 2016/1011) (the "**Benchmark Regulation**"). If any such Reference Asset does constitute such a benchmark, the Final Terms will indicate whether or not the benchmark is provided by an administrator included in the register of administrators and benchmarks established and maintained by the European Securities and Markets Authority ("**ESMA**") pursuant to article 36 of the Benchmark Regulation. Not every Reference Asset will fall within the scope of the Benchmark Regulation. Furthermore, transitional provisions in the Benchmark Regulation may have the result that the administrator of a particular benchmark is not required to appear in the register of administrators and benchmarks at the date of the applicable Final Terms. The registration status of any administrator under the Benchmark Regulation is a matter of public record and, save where required by applicable law, the Issuer does not intend to update the Final Terms to reflect any change in the registration status of an administrator.

In the case of an index as Reference Asset and if such index is provided by a legal entity or a natural person acting in association with, or on behalf of, the Issuer the Issuer makes the following statements:

- the complete set of rules of the index and information on the performance of the index are freely accessible on the Issuer's or the Index Sponsor's website; and
- the governing rules (including methodology of the index for the selection and the rebalancing of the components of the index, description of market disruption events and adjustment rules) are based on predetermined and objective criteria.

6. Issuance of Securities

The general conditions of the Securities (as completed by the reference asset linked conditions in relation to the relevant reference asset) are set out on pages 112 to 217 (the "**General Conditions**"). The conditions governing the return on the Securities and how it is calculated are set out on pages 218 to 254 (the "**Form of Issue Specific Conditions**").

Securities issued under the Programme are issued in series (each, a "**Series**"), and each Series may comprise one or more tranches ("**Tranches**" and each, a "**Tranche**") of Securities. One or more Tranches of Securities will be the subject of the Final Terms (the "**Final Terms**"), a copy of which may be obtained free of charge from the Specified Office of the Programme Agent.

7. Form of Securities

The Securities will be represented by a permanent global bearer note (the "**Global Bearer Note**") which is deposited with Clearstream Banking AG, Frankfurt am Main, Mergenthalerallee 61, 65760 Eschborn, Germany (the "**Relevant Calculation Agent**"). Each Global Bearer Note representing the Securities (or any nominal amount thereof) will set out therein the applicable Issue Specific Conditions, as replicated in the applicable Final Terms, and the General Conditions (including the applicable Reference Asset Linked Conditions). If permitted under the law applicable in relation to the registration, each Global Bearer Note will only make reference to the applicable Issue Specific Conditions, as replicated in the applicable Final Terms, and the General Conditions (including the applicable Reference Asset Linked Conditions) and as a consequence the applicable Issue Specific Conditions and the General Conditions will not be replicated in therein. The Securities will not be issued in definitive form.

The Common Code, the International Securities Identification Number (ISIN), the German Security Identification Number (WKN), the Valor, the Common Code and/or any other identification number, as the case may be, for each Series of Securities will be set out in the relevant Final Terms.

8. Programme Agent

Unless otherwise specified in the applicable Final Terms, BNP Paribas S.A. Germany Branch, Senckenberganlage 19, 60325 Frankfurt am Main, Germany will act as Programme Agent (the "**Programme Agent**") in respect of any Securities which are cleared through Clearstream Banking AG, Frankfurt am Main. The Programme Agent will act as paying agent.

9. Post-Issuance Information

Unless otherwise specified in the applicable Final Terms, the Issuer does not intend to publish any post-issuance information with the exception of the notices referred to in the Terms and Conditions.

10. Terms and Conditions of the Offer

The Securities issued by JPMSE will be offered by J.P. Morgan SE, Taunustor 1 (TaunusTurm), 60310 Frankfurt am Main, Germany, with the legal entity identifier (LEI) 549300ZK53CNGEEI6A29.

Securities which are offered to the public will be issued by the Issuer at the Issue Price as specified in the relevant Final Terms (as well as any further costs, expenses or taxes specifically charged to the subscriber or purchaser in addition to the Issue Price (plus a surcharge, if applicable)). The Issue Price will be determined by the Issuer in consultation with the Dealer at the time of the offer of the Securities to the public and will depend, amongst other things, on prevailing market conditions at that time. The offer price of such Securities will be the Issue Price or such other price as may be agreed between an investor and the relevant financial intermediary making the offer of the Securities to such investor. The Issuer will not be party to arrangements between an investor and the respective financial intermediary, and the investor will need to look to the relevant financial intermediary to confirm the price at which such financial intermediary is offering the Securities to such investor.

The start of the public offering of the Securities, the Issue Date, the Issue Size and, if applicable, any subscription period, the description of the subscription process, manner and date in which results of the offer are to be made public, the minimum investment amount and the maximum investment amount, the process for notification to applicants of the amount allotted and the indication whether dealing may begin before notification is made, the name(s) and address(es), to the extent known to the Issuer, of the placers in the various countries where the offer takes place will be specified under "Terms and Conditions of the Offer" under "Other Information" in the applicable Final Terms.

The applicable Final Terms will stipulate whether a fee will be paid to the financial intermediary or whether no fees will be paid for a Security.

11. Indication of yield

The yield of the Securities can only be determined at the end of the term, as only then the actual coupons paid (if the Securities provide for coupon payments) and the actual Settlement Amount or the equivalent of the delivered Reference Asset and the actual term of the Securities in full are known. Therefore no information on the expected yield can be given.

For the calculation of the individual yield over the entire term, the Holder must take into account the price originally paid, the Settlement Amount or the equivalent of the delivered Reference Asset, the amount and time of any coupon payments, the term of the Securities and the individual transaction costs.

12. Explanation of mechanism of Securities

12.1. Product No. 1. Explanation of mechanism of Warrants

(a) Description of Call Warrants with European Style

Warrants have a fixed term and will automatically be exercised on the Valuation Date (European Style). The Holders do not have the right to exercise the Warrants during the term. Holders of Call Warrants expect the price of the Reference Asset to rise.

The Holders will receive a Settlement Amount on the Maturity Date if the Final Value exceeds the Strike. The Settlement Amount is equal to the Ratio multiplied by the amount by which the Final Value exceeds the Strike. If applicable, the result will be converted into the Specified Currency. If the Final Value is equal to or below the Strike the Warrants expire worthless, unless the applicable Final Terms provide that the Settlement Amount shall be at least equal to a minimum amount specified in the Final Terms. However, such minimum amount may also be zero or close to zero so that, even if a minimum amount is provided for, the Holder will receive no or only a small redemption.

The leverage effect is one of the main characteristics of Warrants. Holders will participate disproportionately (with leverage) in the performance of the Reference Asset. Accordingly, a Holder may earn significant profits or incur significant losses.

(b) Description of Put Warrants with European Style

Warrants have a fixed term and will automatically be exercised on the Valuation Date (European Style). The Holders do not have the right to exercise the Warrants during the term. Holders of Put Warrants expect the price of the Reference Asset to fall.

The Holders will receive a Settlement Amount on the Maturity Date if the Final Value is below the Strike. The Settlement Amount is equal to the Ratio multiplied by the amount by which the Final Value falls below the Strike. If applicable, the result will be converted into the Specified Currency. If the Final Value is equal to or above the Strike the Warrants expire worthless, unless the applicable Final Terms provide that the Settlement Amount shall be at least equal to a minimum amount specified in the Final Terms. However, such minimum amount may also be zero or close to zero so that, even if a minimum amount is provided for, the Holder will receive no or only a small redemption.

The leverage effect is one of the main characteristics of Warrants. Holders will participate disproportionately (with leverage) in the performance of the Reference Asset. Accordingly, a Holder may earn significant profits or incur significant losses.

(c) Description of Call Warrants with American Style

Warrants have a fixed term. Holders of Call Warrants expect the price of the Reference Asset to rise. The Holders have the right to exercise the Warrants on any Exercise Business Day during the Exercise Period. If the Holder foregoes the exercise of the Warrants during the Exercise Period the Warrants are exercised automatically on the last day of the Exercise Period (American Style).

After exercising the Warrants or if an automatic exercise has occurred at the end of the term of the Warrants the Holder will receive a Settlement Amount if the Final Value exceeds the Strike. The Settlement Amount is equal to the Ratio multiplied by the amount by which the Final Value exceeds the Strike. If applicable, the result will be converted into the Specified Currency. If the Final Value is equal to or below the Strike the Warrants expire worthless, unless the applicable Final Terms provide that the Settlement Amount shall be at least equal to a minimum amount specified in the Final Terms. However, such minimum amount may also be zero or close to zero so that, even if a minimum amount is provided for, the Holder will receive no or only a small redemption.

The leverage effect is one of the main characteristics of Warrants. Holders will participate disproportionately (with leverage) in the performance of the Reference Asset. Accordingly, a Holder may earn significant profits or incur significant losses.

(d) **Description of Put Warrants with American Style**

Warrants have a fixed term. Holders of Put Warrants expect the price of the Reference Asset to fall. The Holders have the right to exercise the Warrants on any Exercise Business Day during the Exercise Period. If the Holder foregoes the exercise of the Warrants during the Exercise Period the Warrants are exercised automatically on the last day of the Exercise Period (American Style).

After exercising the Warrants or if an automatic exercise has occurred at the end of the term of the Warrants the Holder will receive a Settlement Amount if the Final Value is below the Strike. The Settlement Amount is equal to the Ratio multiplied by the amount by which the Final Value falls below the Strike. If applicable, the result will be converted into the Specified Currency. If the Final Value is equal to or above the Strike the Warrants expire worthless, unless the applicable Final Terms provide that the Settlement Amount shall be at least equal to a minimum amount specified in the Final Terms. However, such minimum amount may also be zero or close to zero so that, even if a minimum amount is provided for, the Holder will receive no or only a small redemption.

The leverage effect is one of the main characteristics of Warrants. Holders will participate disproportionately (with leverage) in the performance of the Reference Asset. Accordingly, a Holder may earn significant profits or incur significant losses.

12.2. Product No. 2. Explanation of mechanism of Turbo Warrants and/or X-Turbo Warrants

(a) **Description of Turbo Long Warrants and/or X-Turbo Long Warrants**

Turbo Warrants and/or X-Turbo Warrants have a fixed term. Subject to the occurrence of a Knock-Out Event, the Turbo Warrants and/or X-Turbo Warrants will automatically be exercised on the Valuation Date (European Style). The Holders do not have the right to exercise the Turbo Warrants and/or X-Turbo Warrants during the term. Holders of Turbo Long Warrants and/or X-Turbo Long Warrants expect the price of the Reference Asset to rise.

Provided that no Knock-Out Event occurs, the Holders will receive a Settlement Amount on the Maturity Date. The Settlement Amount is equal to the Ratio multiplied by the amount by which the Final Value exceeds the Strike. If applicable, the result will be converted into the Specified Currency.

A Knock-Out Event occurs if a Knock-Out Observation Price specified in the applicable Final Terms reaches or falls below the Knock-Out Barrier. The Knock-Out Barrier is equal to the Strike. In the case of a Knock-Out Event, the Turbo Warrants and/or X-Turbo Warrants will immediately expire worthless without the need for separate termination.

The leverage effect is one of the main characteristics of Turbo Warrants and/or X-Turbo Warrants. Holders will participate disproportionately (with leverage) in the performance of the Reference Asset. Accordingly, a Holder may earn significant profits or incur significant losses.

(b) **Description of Turbo Short Warrants and/or X-Turbo Short Warrants**

Turbo Warrants and/or X-Turbo Warrants have a fixed term. Subject to the occurrence of a Knock-Out Event, the Turbo Warrants and/or X-Turbo Warrants will automatically be exercised on the Valuation Date (European Style). The Holders do not have the right to exercise the Turbo Warrants and/or X-Turbo Warrants during the term. Holders of Turbo Short Warrants and/or X-Turbo Short Warrants expect the price of the Reference Asset to fall.

Provided that no Knock-Out Event occurs, the Holders will receive a Settlement Amount on the Maturity Date. The Settlement Amount is equal to the Ratio multiplied by the amount by

which the Final Value falls below the Strike. If applicable, the result will be converted into the Specified Currency.

A Knock-Out Event occurs if a Knock-Out Observation Price specified in the applicable Final Terms reaches or exceeds the Knock-Out Barrier. The Knock-Out Barrier is equal to the Strike. In the case of a Knock-Out Event, the Turbo Warrants and/or X-Turbo Warrants will immediately expire worthless without the need for separate termination.

The leverage effect is one of the main characteristics of Turbo Warrants and/or X-Turbo Warrants. Holders will participate disproportionately (with leverage) in the performance of the Reference Asset. Accordingly, a Holder may earn significant profits or incur significant losses.

12.3. Product No. 3. Explanation of mechanism of Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates

(a) Description of Unlimited Turbo Long Warrants and/or BEST Turbo Certificates Long and/or Unlimited X-Turbo Long Warrants and/or BEST X-Turbo Certificates Long with American Style

Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates principally have an unlimited term, but the term ends in the event of (i) the occurrence of a Knock-Out Event, (ii) a termination by the Issuer or (iii) an exercise by the Holder. Holders of Unlimited Turbo Long Warrants and/or BEST Turbo Certificates Long and/or Unlimited X-Turbo Long Warrants and/or BEST X-Turbo Certificates Long expect the price of the Reference Asset to rise.

The Holders have the right to exercise the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates on a daily basis (American Style). After exercising the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates the Holders will receive a Settlement Amount if the Final Value exceeds the Current Strike. The Settlement Amount is equal to the Ratio multiplied by the amount by which the Final Value exceeds the Current Strike. If applicable, the result will be converted into the Specified Currency.

A Knock-Out Event occurs if a Knock-Out Observation Price specified in the applicable Final Terms reaches or falls below the Current Knock-Out Barrier. The Current Knock-Out Barrier is equal to the Current Strike. In the case of a Knock-Out Event, the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates will immediately expire worthless without the need for separate termination.

The Issuer may adjust both the Current Strike and the Current Knock-Out Barrier on a regular basis, taking into account the costs associated with the daily financing and hedging of the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates.

The leverage effect is one of the main characteristics of Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates. Holders will participate disproportionately (with leverage) in the performance of the Reference Asset. Accordingly, a Holder may earn significant profits or incur significant losses.

(b) Description of Unlimited Turbo Short Warrants and/or BEST Turbo Certificates Short and/or Unlimited X-Turbo Short Warrants and/or BEST X-Turbo Certificates Short with American Style

Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates principally have an unlimited term, but the term ends in the event of (i) the occurrence of a Knock-Out Event, (ii) a termination by the Issuer or

(iii) an exercise by the Holder. Holders of Unlimited Turbo Short Warrants and/or BEST Turbo Certificates Short and/or Unlimited X-Turbo Short Warrants and/or BEST X-Turbo Certificates Short expect the price of the Reference Asset to fall.

The Holders have the right to exercise the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates on a daily basis (American Style). After exercising the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates the Holders will receive a Settlement Amount if the Final Value falls below the Current Strike. The Settlement Amount is equal to the Ratio multiplied by the amount by which the Final Value falls below the Current Strike. If applicable, the result will be converted into the Specified Currency.

A Knock-Out Event occurs if a Knock-Out Observation Price specified in the applicable Final Terms reaches or exceeds the Current Knock-Out Barrier. The Current Knock-Out Barrier is equal to the Current Strike. In the case of a Knock-Out Event, the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates will immediately expire worthless without the need for separate termination.

The Issuer may adjust both the Current Strike and the Current Knock-Out Barrier on a regular basis, taking into account the costs associated with the daily financing and hedging of the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates.

The leverage effect is one of the main characteristics of Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates. Holders will participate disproportionately (with leverage) in the performance of the Reference Asset. Accordingly, a Holder may earn significant profits or incur significant losses.

12.4. Product No. 4. Explanation of mechanism of Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates

(a) Description of Mini Future Long Warrants and/or Turbo Certificates Long and/or X-Mini Future Long Warrants and/or X-Turbo Certificates Long with American Style

Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates principally have an unlimited term, but the term ends in the event of (i) the occurrence of a Stop-Loss Event, (ii) a termination by the Issuer or (iii) an exercise by the Holder. Holders of Mini Future Long Warrants and/or Turbo Certificates Long and/or X-Mini Future Long Warrants and/or X-Turbo Certificates Long expect the price of the Reference Asset to rise.

The Holders have the right to exercise the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates on a daily basis (American Style). After exercising the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates the Holders will receive a Settlement Amount if the Final Value exceeds the Current Strike. The Settlement Amount is equal to the Ratio multiplied by the amount by which the Final Value exceeds the Current Strike. If applicable, the result will be converted into the Specified Currency.

A Stop-Loss Event occurs if a Stop-Loss Observation Price specified in the applicable Final Terms reaches or falls below the Current Stop-Loss Barrier. In the case of a Stop-Loss Event, the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates will expire immediately without the need for separate termination. The Issuer determines the rebate of the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates (the so-called Stop-Loss Settlement Amount) which will be paid to the Holders. The Stop-Loss Settlement Amount is calculated on the basis of the price of the Reference Asset determined after the occurrence of the Stop-Loss Event (the "Stop-Loss Reference Price") and can amount to zero (0). If provided for in

the applicable Final Terms, the Stop-Loss Settlement Amount is at least equal to the Stop-Loss Settlement Base Amount.

The Issuer may adjust both the Current Strike and the Current Stop-Loss Barrier on a regular basis, taking into account the costs associated with the daily financing and hedging of the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates.

The leverage effect is one of the main characteristics of Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates. Holders will participate disproportionately (with leverage) in the performance of the Reference Asset. Accordingly, a Holder may earn significant profits or incur significant losses.

(b) **Description of Mini Future Short Warrants and/or Turbo Certificates Short and/or X-Mini Future Short Warrants and/or X-Turbo Certificates Short with American Style**

Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates principally have an unlimited term, but the term ends in the event of (i) the occurrence of a Stop-Loss Event, (ii) a termination by the Issuer or (iii) an exercise by the Holder. Holders of Mini Future Short Warrants and/or Turbo Certificates Short and/or X-Mini Future Short Warrants and/or X-Turbo Certificates Short expect the price of the Reference Asset to fall.

The Holders have the right to exercise the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates on a daily basis (American Style). After exercising the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates the Holders will receive a Settlement Amount if the Final Value falls below the Current Strike. The Settlement Amount is equal to the Ratio multiplied by the amount by which the Final Value falls below the Current Strike. If applicable, the result will be converted into the Specified Currency.

A Stop-Loss Event occurs if a Stop-Loss Observation Price specified in the applicable Final Terms reaches or exceeds the Current Stop-Loss Barrier. In the case of a Stop-Loss Event, the Mini Future Warrant and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates will expire immediately without the need for separate termination. The Issuer determines the rebate of the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates (the so-called Stop-Loss Settlement Amount) which will be paid to the Holders. The Stop-Loss Settlement Amount is calculated on the basis of the price of the Reference Asset determined after the occurrence of the Stop-Loss Event (the "Stop-Loss Reference Price") and can amount to zero (0). If provided for in the applicable Final Terms, the Stop-Loss Settlement Amount is at least equal to the Stop-Loss Settlement Base Amount.

The Issuer may adjust both the Current Strike and the Current Stop-Loss Barrier on a regular basis, taking into account the costs associated with the daily financing and hedging of the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates.

The leverage effect is one of the main characteristics of Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates. Holders will participate disproportionately (with leverage) in the performance of the Reference Asset. Accordingly, a Holder may earn significant profits or incur significant losses.

12.5. Product No. 5. Explanation of mechanism of Factor Warrants

(a) **Description of Factor Warrants Long with American Style that are not linked to a Factor Index as Reference Asset**

Factor Warrants principally have an unlimited term, but the term ends in the event of (i) an exercise by the Holder or (ii) a termination by the Issuer. Holders of Factor Warrants Long expect the price of the Reference Asset to rise.

Holders have the right to exercise the Factor Warrants on a daily basis (American Style). After exercising the Factor Warrants the Holders will receive a Settlement Amount, subject to the occurrence of a termination of the Factor Warrants (see below). The Settlement Amount is equal to the Current Ratio multiplied by the amount by which the Final Value exceeds the Current Strike. If applicable, the result will be converted into the Specified Currency.

The leverage effect is one of the main characteristics of Factor Warrants. Holders will participate disproportionately (with leverage) in the performance of the Reference Asset. Accordingly, a Holder may earn significant profits or incur significant losses.

The aim of Factor Warrants is to keep the leverage of the Factor Warrants constant during their term. For this purpose the Issuer will adjust the Current Strike, the Current Ratio and the Current Adjustment Barrier on a regular basis, taking into account the costs associated with the daily financing and hedging of the Factor Warrants.

Furthermore, the Strike, the Ratio and the Adjustment Barrier will be adjusted intraday if the Reference Asset reaches or falls below the respective Current Adjustment Barrier (so-called "Adjustment Event"). In the course of such intraday adjustment the Issuer will determine the Value of the Reference Asset. **If the Value of the Reference Asset is equal to or below the Current Strike last applicable before the occurrence of the relevant Adjustment Event the Factor Warrants will be automatically terminated (so-called "Adjustment Event Termination") and the Holder will receive the Adjustment Event Termination Amount as specified in the relevant Final Terms. If a Holder exercises the Factor Warrants and an Adjustment Event Termination occurs in the period between the exercise of the Factor Warrants and the determination of the Final Value, the Exercise Notice of the Holder becomes void and the Holder receives only the Adjustment Event Termination Amount as specified in the relevant Final Terms.**

(b) **Description of Factor Warrants Short with American Style that are not linked to a Factor Index as Reference Asset**

Factor Warrants principally have an unlimited term, but the term ends in the event of (i) an exercise by the Holder or (ii) a termination by the Issuer. Holders of Factor Warrants Short expect the price of the Reference Asset to fall.

Holders have the right to exercise the Factor Warrants on a daily basis (American Style). After exercising the Factor Warrants the Holders will receive a Settlement Amount, subject to the occurrence of a termination of the Factor Warrants (see below). The Settlement Amount is equal to the Current Ratio multiplied by the amount by which the Final Value falls below the Current Strike. If applicable, the result will be converted into the Specified Currency.

The leverage effect is one of the main characteristics of Factor Warrants. Holders will participate disproportionately (with leverage) in the performance of the Reference Asset. Accordingly, a Holder may earn significant profits or incur significant losses.

The aim of Factor Warrants is to keep the leverage of the Factor Warrants constant during their term. For this purpose the Issuer will adjust the Current Strike, the Current Ratio and the Current Adjustment Barrier on a regular basis, taking into account the costs associated with the daily financing and hedging of the Factor Warrants.

Furthermore, the Strike, the Ratio and the Adjustment Barrier will be adjusted intraday if the Reference Asset reaches or exceeds the respective Current Adjustment Barrier (so-called "Adjustment Event"). In the course of such intraday adjustment the Issuer will determine the Value of the Reference Asset. **If the Value of the Reference Asset is equal to or above the Current Strike last applicable before the occurrence of the relevant Adjustment Event the Factor Warrants will be automatically terminated (so-called "Adjustment Event Termination") and the Holder will receive the Adjustment Event Termination Amount as specified in the relevant Final Terms. If a Holder exercises the Factor Warrants and an Adjustment Event Termination occurs in the period between the exercise of the Factor Warrants and the determination of the Final Value, the Exercise Notice of the**

Holder becomes void and the Holder receives only the Adjustment Event Termination Amount as specified in the relevant Final Terms.

(c) **Description of Factor Warrants that are linked to a Factor Index as Reference Asset**

Factor Warrants do not have a fixed term, but the term ends in the event of (i) a termination by the Issuer or (ii) an exercise by the Holder. Factor Warrants enable the Holder to participate in the development of the respective Reference Asset which is an index (the "**Factor Index**"). The relevant Final Terms will specify the respective Factor Index.

On redemption the Holders receive a Settlement Amount (if applicable, converted into the Specified Currency), the amount of which equals the Final Value multiplied by the Ratio and, if provided for in the applicable Final Terms, further multiplied by the Management Factor or the Fee Factor. The Settlement Amount is at least zero (0).

Factor Indices replicate a leveraged investment in an underlying:

- In the case of Long Factor Indices the respective Factor Index reflects price movements in the underlying with a leverage factor. An increase in the price of the underlying since the most recent calculation of a closing price of the Factor Index results in a positive change in the Factor Index as compared to the previous price of the Factor Index and vice-versa. The Factor Index therefore reflects a "long" strategy.
- In the case of Short Factor Indices the Factor Index reflects price movements in the underlying with a leverage factor. A decrease in the price of the underlying since the most recent calculation of a closing price of the Factor Index results in a positive change in the Factor Index as compared to the previous price of the Factor Index and vice versa. The Factor Index therefore replicates a "short" strategy.

The value of the Factor Index is calculated on the basis of (a) a leverage component and (b) a financing component.

- **Leverage component**

In the case of Long Factor Indices the leverage component tracks an investment in the underlying, whereby movements in the price of the underlying are multiplied by the leverage (*Factor*). This leverage effect occurs with either positive or negative movements in the price of the underlying, having a disproportionate effect on the value of the Factor Index. For example, in the case of a Factor 3 an increase in the price of the underlying (as compared to the last price of the underlying) by 1% results in an increase in the Factor Index by 3% ($3 \times 1\%$) whereas a decrease in the price of the underlying (as compared to the last price of the Underlying) by 1% results in a decrease in the Factor Index by 3% ($3 \times 1\%$)).

In the case of Short Factor Indices the leverage component inversely tracks an investment in the underlying, whereby movements in the price of the underlying are multiplied by the leverage (*Factor*). This leverage effect occurs with either positive or negative movements in the price of the underlying, having a disproportionate effect on the value of the Factor Index. For example, in the case of a Factor 3 an increase in the price of the underlying (as compared to the last price of the underlying) by 1% results in a decrease in the Factor Index by 3% ($3 \times 1\%$) whereas a decrease in the price of the underlying (as compared to the last price of the underlying) by 1% results in an increase in the Factor Index by 3% ($3 \times 1\%$)).

- **Financing component**

In the case of Long Factor Indices the financing component tracks the capital costs that would be incurred to finance the corresponding investment in the underlying. Additionally, a gap fee is charged to reflect the cost of hedging against gap price movements. Therefore, the financing component reduces the value of the Factor Index.

In the case of Short Factor Indices the financing component emulates the income and expenses that would arise from acquiring the underlying, selling it and investing the proceeds at the risk-free rate. Additionally, a gap fee is charged to reflect the cost of hedging against gap price movements. If the acquisition costs and the index fee exceed the interest income based on the relevant reference rate on a particular day, the value of the Factor Index is reduced on such day.

In order to reduce the risk of the value of the Factor Index falling to zero (0) or negative within one day due to a sharp movement in the price of the underlying, Factor Indices have a barrier specified in the applicable methodology of the relevant Factor Index. In the event of price losses in the Factor Index that are too high (depending on the structure of the respective Factor Index), the calculation of the Factor Index is interrupted and a new day is simulated.

12.6. Product No. 6. Explanation of mechanism of Discount Certificates

In the case of Discount Certificates, Holders receive a Settlement Amount on the Maturity Date, the amount of which depends on the performance of the Reference Asset. The Issue Price or the current price of the Discount Certificate tends to be below the maximum of the current price of the Reference Asset and the Cap (*discount*) taking into account the Ratio.

On the Maturity Date the Holders receive a Settlement Amount (if applicable, converted into the Specified Currency), the amount of which is dependent on the Final Value:

- (i) If the Final Value is at or above the Cap, the Settlement Amount is equal to the Maximum Amount.
- (ii) If the Final Value is below the Cap, Holders receive a Settlement Amount which is equal to the Final Value taking into account the Ratio.

12.7. Product No. 7. Explanation of mechanism of Barrier Discount Certificates

In the case of Barrier Discount Certificates, Holders participate in the performance of the Reference Asset throughout the term. The Issue Price or the current price of the Barrier Discount Certificate tends to be below the maximum of the current price of the Reference Asset and the Cap (*discount*) taking into account the Ratio.

On the Maturity Date the Holders receive a Settlement Amount (if applicable, converted into the Specified Currency), the amount of which is dependent on the performance of the Reference Asset.

- (i) If no Barrier Event occurs, the Settlement Amount is equal to the Maximum Amount.
- (ii) If a Barrier Event has occurred, the Settlement Amount is equal to the Final Value taking into account the Ratio, but will not exceed the Maximum Amount.

A Barrier Event occurs if a Barrier Observation Price specified in the applicable Final Terms reaches or falls below the Barrier.

12.8. Product No. 8. Explanation of mechanism of Bonus Certificates

In the case of Bonus Certificates, Holders receive a Settlement Amount (if applicable, converted into the Specified Currency) on the Maturity Date, the amount of which depends on the performance of the Reference Asset:

- (i) If no Barrier Event occurs, the Settlement Amount is equal to the Final Value taking into account the Ratio, whereby the Settlement Amount is at least equal to the Bonus Amount.
- (ii) If a Barrier Event has occurred, the Settlement Amount is no longer at least equal to the Bonus Amount, but is always equal to the Ratio multiplied by the Final Value.

A Barrier Event occurs if a Barrier Observation Price specified in the applicable Final Terms reaches or falls below the Barrier.

12.9. Product No. 9. Explanation of mechanism of Reverse Bonus Certificates

In the case of Reverse Bonus Certificates, Holders receive a Settlement Amount (if applicable, converted into the Specified Currency) on the Maturity Date, the amount of which depends on the performance of the Reference Asset. A particular feature is that the participation of the Holders is **inverse** to the performance of the Reference Asset.

- (i) If no Barrier Event occurs, the Settlement Amount equals the Reverse Level minus the Final Value, taking into account the Ratio, and is at least equal to the Bonus Amount.
- (ii) If a Barrier Event has occurred, the Settlement Amount is no longer at least equal to the Bonus Amount, but always equals the Reverse Level minus the Final Value, taking into account the Ratio (direct participation in the negative Performance of the Reference Asset), and is at least equal to zero (0).

A Barrier Event occurs if a Barrier Observation Price specified in the applicable Final Terms reaches or exceeds the Barrier.

12.10. Product No. 10. Explanation of mechanism of Capped Bonus Certificates

In the case of Capped Bonus Certificates, Holders receive a Settlement Amount (if applicable, converted into the Specified Currency) on the Maturity Date, the amount of which depends on the performance of the Reference Asset.

- (i) If no Barrier Event occurs, the Settlement Amount equals the Final Value taking into account the Ratio, but is at least equal to the Bonus Amount and does not exceed the Maximum Amount.
- (ii) If a Barrier Event has occurred, the Settlement Amount is no longer at least equal to the Bonus Amount, but is always equal to the Ratio multiplied by the Final Value and does not exceed the Maximum Amount.

A Barrier Event occurs if a Barrier Observation Price specified in the applicable Final Terms reaches or falls below the Barrier.

12.11. Product No. 11. Explanation of mechanism of Capped Reverse Bonus Certificates

In the case of Capped Reverse Bonus Certificates, Holders receive a Settlement Amount (if applicable, converted into the Specified Currency) on the Maturity Date, the amount of which depends on the performance of the Reference Asset. A particular feature is that the participation of the Holders is **inverse** to the performance of the Reference Asset.

- (i) If no Barrier Event occurs, the Settlement Amount equals the Reverse Level minus the Final Value, taking into account the Ratio, but is at least equal to the Bonus Amount and does not exceed the Maximum Amount.
- (ii) If a Barrier Event has occurred, the Settlement Amount is no longer at least equal to the Bonus Amount, but always equals the Reverse Level minus the Final Value, taking into account the Ratio, and is at least equal to zero (0) and does not exceed the Maximum Amount.

A Barrier Event occurs if a Barrier Observation Price specified in the applicable Final Terms reaches or exceeds the Barrier.

12.12. Product No. 12. Explanation of mechanism of Reverse Convertibles

- (a) **Reverse Convertibles that provide for cash settlement in all cases**

Reverse Convertibles are linked to the performance of the Reference Asset. The Holder receives a Settlement Amount (if applicable, converted into the Specified Currency) on the Maturity Date, determined as follows:

- (i) If the Final Value is above or equal to the Strike, the Holder receives the Nominal and/or the Calculation Amount. The Nominal and/or the Calculation Amount is the maximum amount that the Holder may receive as a Settlement Amount.
- (ii) If the Final Value is below the Strike, the Holder receives a Settlement Amount in the amount of the Nominal and/or the Calculation Amount multiplied by the Performance of the Reference Asset or, if provided for in the applicable Final Terms, the Ratio multiplied by the Final Value. This amount is less than the Nominal and/or the Calculation Amount.

A further feature of Reverse Convertibles is that the Holder receives a Coupon Amount on one or more Coupon Payment Dates specified in the Final Terms. The coupon payment is independent of the performance of the Reference Asset.

(b) Reverse Convertibles that may provide for physical settlement

Reverse Convertibles are linked to the performance of the Reference Asset. The Holder receives a Settlement Amount (cash amount or delivery of the Reference Asset or shares of an Exchange Traded Fund, as set out in the applicable Final Terms) on the Maturity Date, determined as follows:

- (i) If the Final Value is above or equal to the Strike, the Holder receives the Nominal and/or the Calculation Amount. The Nominal and/or the Calculation Amount is the maximum amount that the Holder may receive as a Settlement Amount.
- (ii) If the Final Value is below the Strike, the Holder receives delivery of a certain number of the Reference Asset or shares of an Exchange Traded Fund expressed by the Number of Reference Assets. Residuals of the Reference Asset or shares of an Exchange Traded Fund are not delivered, but are compensated by a cash payment, the so-called Residual Cash Amount.

A further feature of Reverse Convertibles is that the Holder receives a Coupon Amount on one or more Coupon Payment Dates specified in the Final Terms. The coupon payment is independent of the performance of the Reference Asset.

12.13. Product No. 13. Explanation of mechanism of Barrier Reverse Convertibles

(a) Barrier Reverse Convertibles that provide for cash settlement in all cases

Barrier Reverse Convertibles are linked to the performance of the Reference Asset. The Holder receives a Settlement Amount (if applicable, converted into the Specified Currency) on the Maturity Date, determined as follows:

- (i) If the Final Value is above or equal to the Strike, the Holder receives the Nominal and/or the Calculation Amount. The Nominal and/or the Calculation Amount is the maximum amount that the Holder may receive as a Settlement Amount.
- (ii) If the Final Value is below the Strike, but if no Barrier Event has occurred during the term of the Securities, the Holder likewise receives the Nominal and/or the Calculation Amount.
- (iii) If the Final Value is below the Strike and a Barrier Event has occurred during the term of the Securities, the Holder receives a Settlement Amount in the amount of the Nominal and/or the Calculation Amount multiplied by the Performance of the Reference Asset or, if provided for in the applicable Final Terms, the Ratio multiplied by the Final Value.

A Barrier Event occurs if a Barrier Observation Price specified in the Final Terms reaches or falls below the Barrier.

A further feature of Barrier Reverse Convertibles is that the Holder receives a Coupon Amount on one or more Coupon Payment Dates specified in the Final Terms. The coupon payment is independent of the performance of the Reference Asset.

(b) Barrier Reverse Convertibles that may provide for physical settlement

Barrier Reverse Convertibles are linked to the performance of the Reference Asset. The Holder receives a Settlement Amount (cash amount or delivery of the Reference Asset or shares of an Exchange Traded Fund, as set out in the applicable Final Terms) on the Maturity Date, determined as follows:

- (i) If the Final Value is above or equal to the Strike, the Holder receives the Nominal and/or the Calculation Amount. The Nominal and/or the Calculation Amount is the maximum amount that the Holder may receive as a Settlement Amount.
- (ii) If the Final Value is below the Strike, but if no Barrier Event has occurred during the term of the Securities, the Holder likewise receives the Nominal and/or the Calculation Amount.
- (iii) If the Final Value is below the Strike and a Barrier Event has occurred during the term of the Securities, the Holder receives delivery of a certain number of the Reference Asset or shares of an Exchange Traded Fund expressed by the Number of Reference Assets. Residuals of the Reference Asset or shares of an Exchange Traded Fund are not delivered, but are compensated by a cash payment, the so-called Residual Cash Amount.

A Barrier Event occurs if a Barrier Observation Price specified in the Final Terms reaches or falls below the Barrier.

A further feature of Barrier Reverse Convertibles is that the Holder receives a Coupon Amount on one or more Coupon Payment Dates specified in the Final Terms. The coupon payment is independent of the performance of the Reference Asset.

12.14. Product No. 14. Explanation of mechanism of Open End Certificates

(a) Open End Certificates with Nominal and/or Calculation Amount

Open End Certificates do not have a specified limited term. The term of the Securities ends either (i) on the exercise of the Securities by the Holders or (ii) on ordinary termination by the Issuer or (iii) on extraordinary termination by the Issuer.

The Settlement Amount equals the Nominal and/or the Calculation Amount multiplied by the Performance of the Reference Asset and then multiplied by the Management Factor or, in the case of Open End Certificates with a quanto feature, the Fee Factor.

(b) Open End Certificates with Ratio

Open End Certificates do not have a specified limited term. The term of the Securities ends either (i) on the exercise of the Securities by the Holders or (ii) on ordinary termination by the Issuer or (iii) on extraordinary termination by the Issuer.

The Settlement Amount equals the Final Value multiplied by the (current) Ratio and then multiplied by the Management Factor or, in the case of Open End Certificates with a quanto feature, the Fee Factor.

If the Open End Certificates are linked to a Futures Contract and if "Extraordinary Automatic Exercise" is applicable pursuant to the respective Final Terms, the Securities are extraordinarily automatically exercised, if the price of the relevant Futures Contract and/or - in the case of a Rollover - the Rollover Price of the relevant Futures Contract after the Rollover

is zero or negative. In this case the Holder receives the Settlement Amount that may be zero (0). The Holder suffers a total loss in this case.

12.15. Product No. 15. Explanation of mechanism of Discount Warrants

(a) Description of Discount Call Warrants

Discount Warrants have a fixed term and will automatically be exercised on the Valuation Date (European Style). The Holders do not have the right to exercise the Discount Warrants during the term. Holders of Discount Call Warrants expect the price of the Reference Asset to rise. However, Holders should be aware that they do not participate in the performance of the Reference Asset beyond the Cap.

The Holders will receive a Settlement Amount on the Maturity Date that is determined as follows:

- (i) If the Final Value is above the Cap or, if provided for in the applicable Final Terms, equal to the Cap, the Settlement Amount is equal to the difference between the Cap and the Strike, the result multiplied by the Ratio. If applicable, the result will be converted into the Specified Currency. This amount is the maximum amount (the "**Maximum Amount**") the Holders may receive.
- (ii) If the Final Value is (i) below the Cap or, if provided for in the applicable Final Terms, equal to the Cap and (ii) higher than the Strike, the Settlement Amount is equal to the difference between the Final Value and the Strike, the result multiplied by the Ratio. If applicable, the result will be converted into the Specified Currency.
- (iii) If the Final Value is equal to or below the Strike the Discount Warrants expire worthless, unless the applicable Final Terms provide that the Settlement Amount shall be at least equal to a minimum amount specified in the Final Terms. However, such minimum amount may also be zero or close to zero so that, even if a minimum amount is provided for, the Holder will receive no or only a small redemption.

The leverage effect is one of the main characteristics of Discount Warrants. Holders will participate disproportionately (with leverage) in the performance of the Reference Asset. Accordingly, a Holder may earn significant profits or incur significant losses.

(b) Description of Discount Put Warrants

Discount Warrants have a fixed term and will automatically be exercised on the Valuation Date (European Style). The Holders do not have the right to exercise the Discount Warrants during the term. Holders of Discount Put Warrants expect the price of the Reference Asset to fall. However, Holders should be aware that they do not participate in the performance of the Reference Asset below the Floor.

The Holders will receive a Settlement Amount on the Maturity Date that is determined as follows:

- (i) If the Final Value is below the Floor or, if provided for in the applicable Final Terms, equal to the Floor, the Settlement Amount is equal to the difference between the Strike and the Floor, the result multiplied by the Ratio. If applicable, the result will be converted into the Specified Currency. This amount is the maximum amount (the "**Maximum Amount**") the Holders may receive.
- (ii) If the Final Value is (i) above the Floor or, if provided for in the applicable Final Terms, equal to the Floor and (ii) lower than the Strike, the Settlement Amount is equal to the difference between the Strike and the Final Value, the result multiplied by the Ratio. If applicable, the result will be converted into the Specified Currency.
- (iii) If the Final Value is equal to or above the Strike the Discount Warrants expire worthless, unless the applicable Final Terms provide that the Settlement Amount shall be at least equal to a minimum amount specified in the Final Terms. However,

such minimum amount may also be zero or close to zero so that, even if a minimum amount is provided for, the Holder will receive no or only a small redemption.

The leverage effect is one of the main characteristics of Discount Warrants. Holders will participate disproportionately (with leverage) in the performance of the Reference Asset. Accordingly, a Holder may earn significant profits or incur significant losses.

12.16. Product No. 16. Explanation of mechanism of Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates

(a) Description of Closed-End Mini Future Long Warrants and/or Closed-End Turbo Certificates Long and/or Closed-End X-Mini Future Long Warrants and/or Closed-End X-Turbo Certificates Long with European Style

Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates have a fixed term. Subject to the occurrence of a Stop-Loss Event, the Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates will automatically be exercised on the Valuation Date (European Style). The Holders do not have the right to exercise the Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates during the term. Holders of Closed-End Mini Future Long Warrants and/or Closed-End Turbo Certificates Long and/or Closed-End X-Mini Future Long Warrants and/or Closed-End X-Turbo Certificates Long expect the price of the Reference Asset to rise.

Provided that no Stop-Loss Event occurs, the Holders will receive a Settlement Amount on the Maturity Date. The Settlement Amount is equal to the Ratio multiplied by the amount by which the Final Value exceeds the Strike. If applicable, the result will be converted into the Specified Currency.

A Stop-Loss Event occurs if the Stop-Loss Observation Price specified in the applicable Final Terms reaches or falls below the Stop-Loss Barrier. In the case of a Stop-Loss Event, the Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates will expire immediately without the need for separate termination. The Issuer determines the rebate of the Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates (the so-called "**Stop-Loss Settlement Amount**") which will be paid to the Holders. The Stop-Loss Settlement Amount is calculated on the basis of the price of the Reference Asset determined after the occurrence of the Stop-Loss Event (the "**Stop-Loss Reference Price**") and can amount to zero (0). If provided for in the applicable Final Terms, the Stop-Loss Settlement Amount is at least equal to the Stop-Loss Settlement Base Amount.

The leverage effect is one of the main characteristics of Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates. Holders will participate disproportionately (with leverage) in the performance of the Reference Asset. Accordingly, a Holder may earn significant profits or incur significant losses.

(b) Description of Closed-End Mini Future Short Warrants and/or Closed-End Turbo Certificates Short and/or Closed-End X-Mini Future Short Warrants and/or Closed-End X-Turbo Certificates Short with European Style

Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates have a fixed term. Subject to the occurrence of a Stop-Loss Event, the Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates will automatically be exercised on the Valuation Date (European Style). The Holders do not have the right to exercise the Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-

Turbo Certificates during the term. Holders of Closed-End Mini Future Short Warrants and/or Closed-End Turbo Certificates Short and/or Closed-End X-Mini Future Short Warrants and/or Closed-End X-Turbo Certificates Short expect the price of the Reference Asset to fall.

Provided that no Stop-Loss Event occurs, the Holders will receive a Settlement Amount on the Maturity Date. The Settlement Amount is equal to the Ratio multiplied by the amount by which the Final Value falls below the Strike. If applicable, the result will be converted into the Specified Currency.

A Stop-Loss Event occurs if the Stop-Loss Observation Price specified in the applicable Final Terms reaches or exceeds the Stop-Loss Barrier. In the case of a Stop-Loss Event, the Closed-End Mini Future Warrant and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates will expire immediately without the need for separate termination. The Issuer determines the rebate of the Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates (the so-called "**Stop-Loss Settlement Amount**") which will be paid to the Holders. The Stop-Loss Settlement Amount is calculated on the basis of the price of the Reference Asset determined after the occurrence of the Stop-Loss Event (the "**Stop-Loss Reference Price**") and can amount to zero (0). If provided for in the applicable Final Terms, the Stop-Loss Settlement Amount is at least equal to the Stop-Loss Settlement Base Amount.

The leverage effect is one of the main characteristics of Closed-End Mini Future Warrants and/or Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates. Holders will participate disproportionately (with leverage) in the performance of the Reference Asset. Accordingly, a Holder may earn significant profits or incur significant losses.

12.17. Product No. 17. Explanation of mechanism of Capital Protected Certificates

Capital Protected Certificates are linked to the performance of the Reference Asset. Subject to the payment of the Minimum Amount, the Holder receives a Settlement Amount (if applicable, converted into the Specified Currency) on the Maturity Date that equals the sum of (a) the product of the Nominal and/or Calculation Amount and the Capital Protection Percentage and (b) the product of (x) the Nominal and/or Calculation Amount, (y) the Participation Factor and (z) the difference between the Performance of the Reference Asset and the Capital Protection Percentage, expressed as a formula:

$$\text{Settlement Amount} = \text{Nominal and/or Calculation Amount} \times \text{Capital Protection Percentage} + \text{Nominal and/or Calculation Amount} \times \text{Participation Factor} \times (\text{Performance of the Reference Asset} - \text{Capital Protection Percentage})$$

However, the Settlement Amount shall in any case be at least equal to the Minimum Amount specified in the respective Final Terms.

12.18. Product No. 18. Explanation of mechanism of Capped Capital Protected Certificates

Capped Capital Protected Certificates are linked to the performance of the Reference Asset. Subject to the payment of the Minimum Amount and/or the Maximum Amount, the Holder receives a Settlement Amount (if applicable, converted into the Specified Currency) on the Maturity Date that equals the sum of (a) the product of the Nominal and/or Calculation Amount and the Capital Protection Percentage and (b) the product of (x) the Nominal and/or Calculation Amount, (y) the Participation Factor and (z) the difference between the Performance of the Reference Asset and the Capital Protection Percentage, expressed as a formula:

$$\text{Settlement Amount} = \text{Nominal and/or Calculation Amount} \times \text{Capital Protection Percentage} + \text{Nominal and/or Calculation Amount} \times \text{Participation Factor} \times (\text{Performance of the Reference Asset} - \text{Capital Protection Percentage})$$

However, the Settlement Amount shall in any case be at least equal to the Minimum Amount specified in the respective Final Terms. Furthermore, the Settlement Amount will not exceed the Maximum Amount specified in the respective Final Terms.

12.19. Product No. 19. Explanation of mechanism of Participation Certificates

(a) Participation Certificates with Nominal and/or Calculation Amount with European Style

Participation Certificates have a fixed term and will automatically be exercised on the Valuation Date (European Style). The Holders do not have the right to exercise the Participation Certificates during the term.

The Settlement Amount at the end of the term equals the Nominal and/or the Calculation Amount multiplied by the Performance of the Reference Asset and then multiplied by the Management Factor or, in the case of Participation Certificates with a quanto feature, the Fee Factor.

(b) Participation Certificates with Ratio with European Style

Participation Certificates have a fixed term and will automatically be exercised on the Valuation Date (European Style). The Holders do not have the right to exercise the Participation Certificates during the term. .

The Settlement Amount at the end of the term equals the Final Value multiplied by the (current) Ratio and then multiplied by the Management Factor or, in the case of Participation Certificates with a quanto feature, the Fee Factor.

(c) Participation Certificates with Nominal and/or Calculation Amount with American Style

Participation Certificates have a fixed term. The Holders have the right to exercise the Participation Certificates on any Exercise Business Day during the Exercise Period. If the Holder foregoes the exercise of the Participation Certificates during the Exercise Period the Participation Certificates are exercised automatically on the last day of the Exercise Period (American Style).

After exercising the Participation Certificates or if an automatic exercise has occurred at the end of the term of the Participation Certificates the Holder will receive a Settlement Amount that equals the Nominal and/or the Calculation Amount multiplied by the Performance of the Reference Asset and then multiplied by the Management Factor or, in the case of Participation Certificates with a quanto feature, the Fee Factor.

(d) Participation Certificates with Ratio with American Style

Participation Certificates have a fixed term. The Holders have the right to exercise the Participation Certificates on any Exercise Business Day during the Exercise Period. If the Holder foregoes the exercise of the Participation Certificates during the Exercise Period the Participation Certificates are exercised automatically on the last day of the Exercise Period (American Style).

After exercising the Participation Certificates or if an automatic exercise has occurred at the end of the term of the Participation Certificates the Holder will receive a Settlement Amount that equals the Final Value multiplied by the (current) Ratio and then multiplied by the Management Factor or, in the case of Participation Certificates with a quanto feature, the Fee Factor.

IV. TERMS AND CONDITIONS OF THE SECURITIES

A. GENERAL CONDITIONS

*The following is the text of the terms and conditions of the Securities (these "**General Conditions**") that must be read in their entirety, together with the section entitled Issue Specific Conditions of the applicable Final Terms (the "**Issue Specific Conditions**") of the relevant series of Securities which supplement the General Conditions.*

*The General Conditions will be completed by the additional provisions in relation to the relevant reference asset (the "**Reference Asset Linked Conditions**") set out in the Annex to the General Conditions. The Issue Specific Conditions will specify which set of Reference Asset Linked Conditions apply to the relevant series of Securities.*

*Issue Specific Conditions and General Conditions, including the applicable Reference Asset Linked Conditions together constitute the "**Conditions**" of the relevant series of Securities.*

References in these General Conditions to "Notes" or "Warrants" or "Certificates" are to the Notes, Warrants or Certificates of one series only, not to all Securities that may be issued under the Programme.

*The Securities issued by the Issuer will, save as set out below, be represented by a permanent global bearer note (the "**Global Bearer Note**") which is deposited with the applicable Relevant Clearing System. Each Global Bearer Note representing the Securities (or any nominal amount thereof) of a relevant series will indicate the number of Securities as specified in the applicable Final Terms and set out therein or incorporate by reference therein (subject to the law applicable in relation to the registration) the applicable Issue Specific Conditions, as replicated in the applicable Final Terms, and the General Conditions (including the applicable Reference Asset Linked Conditions).*

Section 1 – Security Right, Status, Currency Conversion and Rounding, Definitions

(1) Security Right

Each security (each a "**Security**") of a series (each a "**Series**") of Securities identified by its WKN and/or ISIN (being the WKN and/or ISIN specified in the applicable Final Terms), entitles its holder (each a "**Holder**") to receive on the Maturity Date from the Issuer, in the manner prescribed by the Conditions, such amount as is specified in Part A (Payout Specific Terms) of the relevant Issue Specific Conditions (the "**Settlement Amount**") as follows:

- (a) where Settlement means "Cash Settlement", payment of the Settlement Amount to the relevant Holder; and/or
- (b) where Settlement means either "Cash Settlement" or "Physical Settlement", payment of the Settlement Amount or delivery of the Reference Asset Amount (plus payment of a Residual Cash Amount, if applicable) to the relevant Holder, in each case, subject to and in accordance with the Conditions.

If provided for in Part B (General Terms) of the applicable Issue Specific Conditions, the Holder is also entitled to receive on the respective Coupon Payment Date(s) a Coupon Amount which will be determined pursuant to Section 4 of the General Conditions (*Coupon Payments*).

(2) Status of the Securities

The Securities of each Series constitute direct, unsecured, and unsubordinated obligations of the Issuer, which rank equally among themselves and with all other present and future unsecured and unsubordinated obligations of the Issuer, save for those obligations that may be preferred by provisions of law that are mandatory and of general application.

(3) Currency Conversion and Rounding

(a) *In relation to Cash Settlement:*

If "Currency Conversion" is specified to apply pursuant to Part B (General Terms) of the applicable Issue Specific Conditions and an Exchange Rate is set out therein, the Settlement Amount will be converted from the Reference Currency into the Specified Currency at the Exchange Rate. If "Currency Conversion" is specified to apply in Part B (General Terms) of the applicable Issue Specific Conditions, but no Exchange Rate is set out therein, the Settlement Amount will be converted from the Reference Currency into the Specified Currency by the Calculation Agent at an exchange rate of one unit of the Reference Currency to one unit of the Specified Currency ("**Quanto**").

The Settlement Amount will be rounded to the Settlement Amount Rounding.

(b) *In relation to Physical Settlement:*

Where the Number of Reference Assets comprises fractions, a Holder will receive the Reference Asset Amount comprising the nearest number (rounded down) of the Number of Reference Assets. Securities of any Series belonging to the same Holder shall, unless "**Aggregation**" is specified not to apply in Part B (General Terms) of the applicable Issue Specific Conditions, be aggregated for the purposes of determining the relevant number of the Number of Reference Assets to be delivered, provided that the aggregate number of the Number of Reference Assets, in respect of the same Holder, will be rounded down to the nearest whole number. If specified in Part B (General Terms) of the applicable Issue Specific Conditions a Holder will also receive an amount in cash (the "**Residual Cash Amount**") (if any) in the Specified Currency which, unless otherwise specified in Part B (General Terms) of the applicable Issue Specific Conditions, shall be equal to the product of (i) the Residual Amount and (ii) the relevant Final Value. The Residual Cash Amount will be rounded to the Residual Cash Amount Rounding.

(4) **Definitions**

"**Business Day**" is set out in Part B (General Terms) of the applicable Issue Specific Conditions.

"**Calculation Amount**" is set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions (if applicable).

"**Exchange Rate**" is the exchange rate defined in Part B (General Terms) of the applicable Issue Specific Conditions, expressed in the Reference Currency for one unit of the Specified Currency and which is published by the Exchange Rate Sponsor at the Relevant Exchange Date. If the conversion occurs at a time when an updated exchange rate is not yet published by the Exchange Rate Sponsor on the relevant date, the conversion will be carried out by the Calculation Agent based on the last exchange rate published by the Exchange Rate Sponsor. If the Exchange Rate Sponsor does not publish any exchange rate on the relevant date, the exchange rate shall correspond to the exchange rate published by another financial information service selected by the Calculation Agent. If the exchange rate should no longer be published in any of the above ways, the Calculation Agent has the right to determine, in its reasonable discretion, an exchange rate having regard to existing market conditions (including, but not limited to, the prevailing exchange rate). If the Calculation Agent determines in its reasonable discretion that the Exchange Rate cannot be determined by applying any of the provisions above, the Calculation Agent may determine that the Securities shall be early redeemed. The Issuer shall give notice to the Holders in accordance with Section 16 of the General Conditions (*Notices*) designating the early payment date (the "**Early Payment Date**"). In the case of an early redemption the Issuer will cause to be paid to each Holder in respect of each Security held by it an amount equal to the Early Payment Amount (as defined under Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*), provided that the words "(but ignoring the event which resulted in such early redemption)" shall be deleted). The payment of the Early Payment Amount will be made in such manner as shall be notified to the Holders in accordance with Section 16 of the General Conditions (*Notices*).

"**Exchange Rate Sponsor**" is the entity whose details are specified in Part B (General Terms) of the applicable Issue Specific Conditions.

"**Final Value**" has the meaning given to it in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions and will be determined on the basis of the Reference Asset Price at the Valuation Date (if not otherwise provided for in the applicable Issue Specific Conditions).

"**Initial Valuation Date**" means, subject to adjustment (as a Reference Date) in accordance with the applicable Reference Asset Linked Conditions, the Initial Valuation Date as set out in Part B (General Terms) of the applicable Issue Specific Conditions, or if such date is not a Scheduled Trading Day, the next following Scheduled Trading Day.

"**Initial Value**" has the meaning given to it in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions and will be determined on the Initial Valuation Date (if not otherwise specified in the applicable Issue Specific Conditions).

"**Maturity Date**" is set out in Part B (General Terms) of the applicable Issue Specific Conditions.

"**Nominal**" is set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions (if applicable).

"**Number of Reference Assets**" means the number of units of the relevant asset as set out in Part B (General Terms) of the applicable Issue Specific Conditions.

"**Ratio**" is set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions (if applicable).

"Reference Asset Amount" is specified in Part B (General Terms) of the applicable Issue Specific Conditions, or if no such Reference Asset Amount is so specified, Reference Asset Amount shall mean the Rounded Number of Reference Assets set out in the Issue Specific Conditions.

"Reference Currency" is set out in Part B (General Terms) of the applicable Issue Specific Conditions.

"Relevant Exchange Date" is set out in Part B (General Terms) of the applicable Issue Specific Conditions.

"Residual Amount" means, in respect of a Security, the fraction of the Number of Reference Assets existing prior to the rounding down to the nearest whole number.

"Residual Cash Amount Rounding" is set out in Part B (General Terms) of the applicable Issue Specific Conditions.

"Rounded Number of Reference Assets" mean in respect of each Security, the Number of Reference Assets rounded down to the nearest whole share.

"Scheduled Trading Day" is the date defined in the applicable Reference Asset Linked Conditions.

"Settlement Amount Rounding" is set out in Part B (General Terms) of the applicable Issue Specific Conditions.

"Specified Currency" is set out in Part B (General Terms) of the applicable Issue Specific Conditions.

"Valuation Date" means (subject to adjustment (as a Reference Date) in accordance with the applicable Reference Asset Linked Conditions):

- (a) if "European Style" is the applicable exercise style pursuant to Section 2 of the General Conditions (*Exercise*), the Valuation Date as set out in Part B (General Terms) of the applicable Issue Specific Conditions.
- (b) if "American Style" is the applicable exercise style pursuant to Section 2 of the General Conditions (*Exercise*), the Valuation Date specified in Part B (General Terms) of the applicable Issue Specific Conditions whereby the Valuation Date is principally determined as follows:
 - (i) in the case of Warrants:
 - (aa) and if Reference Asset Price is customarily determined on a Scheduled Trading Day following the Exercise Time:
 - the Exercise Date or, if the Exercise Date is not a Scheduled Trading Day, the next following Scheduled Trading Day; or
 - if the Holder foregoes the exercise of the Securities during the Exercise Period - the last day of the Exercise Period or, if the last day of the Exercise Period is not a Scheduled Trading Day, the next following Scheduled Trading Day.
 - (bb) and if the Reference Asset Price is customarily determined on a Scheduled Trading Day prior to the Exercise Time:
 - the Scheduled Trading Day immediately following the Exercise Date; or
 - if the Holder exercises the Securities on the last date of the Exercise Period - the last day of the Exercise Period or, if the

last day of the Exercise Period is not a Scheduled Trading Day, the next following Scheduled Trading Day; or

- if the Holder foregoes the exercise of the Securities during the Exercise Period - the last day of the Exercise Period or, if the last day of the Exercise Period is not a Scheduled Trading Day, the next following Scheduled Trading Day.

- (ii) in the case of Unlimited Turbo Warrants, BEST Turbo Certificates, Unlimited X-Turbo Warrants, BEST X-Turbo Certificates, Mini Future Warrants, Turbo Certificates, X-Mini Future Warrants and X-Turbo Certificates and/or Factor Warrants:

unless otherwise specified within Part B (General Terms) of the applicable Issue Specific Conditions, the fifth Business Day following the Exercise Date, or, if such date is not a Scheduled Trading Day, the next following Scheduled Trading Day.

Section 2 – Exercise

(1) General

The obligations in relation to the Settlement Amount described in Section 1(1) of the General Conditions (*Security Right, Status, Currency Conversion and Rounding, Definitions – Security Right*) fall due on the Maturity Date when the Security is exercised.

(2) Exercise of Securities by the Holder and automatic exercise

(a) Exercise of Securities / Delivery of an Exercise Notice

Each Security, unless previously redeemed or purchased and cancelled and subject as provided in the Conditions, is exercisable

- (i) on the Valuation Date (in the case of Securities with European Style) or
- (ii) on any Exercise Business Day during the Exercise Period (in the case of Securities with American Style) by delivery of an Exercise Notice at or before the Exercise Time to the Programme Agent. An Exercise Notice delivered after the Exercise Time shall become effective on the next following Exercise Business Day (in the case of Securities with American Style). The delivery of an Exercise Notice shall constitute an irrevocable election by the relevant Holder to exercise the relevant Securities. After delivery of such Exercise Notice, such exercising Holder may not otherwise transfer such Securities.

(b) Automatic Exercise

In the case of (i) Securities with European Style and (ii) Securities with a fixed term and American Style not exercised by the Holder by the end of the Exercise Period the Securities will be exercised automatically on the Valuation Date, and a Holder will not be required to complete an Exercise Notice ("**Automatic Exercise**"). Such Automatic Exercise will only occur if the Settlement Amount is equal to an amount greater than zero (0).

(c) Exercise Notice

"**Exercise Notice**" is a notice of the Holder which declares the exercise of one or more Securities and which contains the following information:

- (i) the name, address, telephone and facsimile details of the Holder,
- (ii) the designation and the number of the Securities which are the subject of the applicable Exercise Notice,

- (iii) a suitable bank and/or securities account, to which any Settlement Amount is to be credited or delivered, in the case of Cash Settlement, in the Specified Currency,
- (iv) a declaration, that neither the Holder nor the beneficial owner of the Securities is a U.S. person or is located within the United States (within the meaning of Regulation S),
- (v) an irrevocable undertaking by the Holder to pay any taxes and capital, stamp, issue, registration and transfer taxes and duties ("**Taxes**") arising on the exercise of the relevant Securities and an instruction from the Holder to the Relevant Clearing System to deduct an amount in respect thereof from any Settlement Amount due to such Holder or otherwise to debit (on or at any time after the Exercise Date) a specified account of the Holder at the Relevant Clearing System with an amount or amounts in respect thereof, and
- (vi) authorisation for the production of such declaration as described in Section 2(2)(c)(iv) of the General Conditions above in applicable administrative or legal proceedings.

The terms used in this sub-paragraph have the meaning ascribed to them in Regulation S promulgated under the United States Securities Act of 1933, as amended from time to time.

The Securities must have been received by the Programme Agent through credit of the Securities to the account of the Programme Agent at the Relevant Clearing System.

Any determination as to whether an Exercise Notice is duly completed and in proper form shall be made by (i) the Relevant Clearing System, in consultation with the Programme Agent or (ii) if the Relevant Clearing System does not review the respective Exercise Notice, the Programme Agent in its reasonable discretion and shall be conclusive and binding on the Issuer, the Agents and the relevant Holder. Any Exercise Notice so determined to be incomplete or not in proper form or which is not copied to the Programme Agent immediately after being sent to the Relevant Clearing System shall be null and void. If such Exercise Notice is subsequently corrected to the satisfaction of the Relevant Clearing System it shall be deemed to be a new Exercise Notice submitted at the time such correction is delivered to the Relevant Clearing System.

Delivery of an Exercise Notice shall constitute an irrevocable election and undertaking by the relevant Holder to exercise the Securities specified therein. After the delivery of an Exercise Notice (other than an Exercise Notice which shall become void), the holder of the Securities specified in such Exercise Notice may not transfer such Securities prior to the Maturity Date. This obligation under the General Conditions does not affect the free transferability of the Securities which is legally granted.

(d) Minimum or Maximum Exercise Amount

Where a "**Minimum Exercise Amount**" has been specified to apply in Part B (General Terms) of the applicable Issue Specific Conditions, the number of Securities exercised on any Exercise Date by a Holder, as determined by the Calculation Agent, must not be less than such Minimum Exercise Amount or multiples thereof. Any purported exercise of Securities in breach of this provision shall be void and of no effect.

Where a "**Maximum Exercise Amount**" has been specified in Part B (General Terms) of the applicable Issue Specific Conditions, if the Calculation Agent determines that the number of Securities being exercised on any Exercise Date by any Holder or any number of Holders (whether or not acting in concert) exceeds such Maximum Exercise Amount (a number of Securities equal to the Maximum Exercise Amount hereinafter referred to as the "**Quota**"), the Issuer may deem the Exercise Date for the first Quota, selected on the basis of the chronological order in which the relevant Exercise Notices have been delivered, to be such day and the Exercise Date for each additional Quota (and any remaining Securities thereof), selected in the same way as above, to be each of the succeeding Exercise Dates until all such relevant Securities have been duly exercised on an Exercise Date, provided, however, that for any such relevant Security for which the relevant Exercise Date would thereby fall after the

final Exercise Date, such final Exercise Date shall be the Exercise Date of the relevant Security. In any case where more than a Quota is exercised on the same day by Holder(s), the determination of the chronological order of settlement in respect of such Securities shall be at the reasonable discretion of the Issuer.

(e) *Extraordinary Automatic Exercise*

If the Open End Certificates are linked to a Futures Contract and if Extraordinary Automatic Exercise is applicable pursuant to the respective Final Terms, the term of the Securities ends automatically without the need for a separate termination of the Securities by the Issuer, if the price of the relevant Futures Contract and/or - in the case of a Rollover - the Rollover Price of the relevant Futures Contract after the Rollover is zero or negative ("**Extraordinary Automatic Exercise**"). In the case of an Extraordinary Automatic Exercise the Holder receives the Settlement Amount; the day on which the Extraordinary Automatic Exercise occurs shall be deemed the Valuation Date. The Settlement Amount is at least zero (0).

(3) **Definitions**

"**Exercise Business Day**" is set out in Part B (General Terms) of the Issue Specific Conditions.

"**Exercise Date**" means, subject to (i) an extraordinary termination pursuant to the Reference Asset Linked Conditions or Section 10 of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, or Termination for Taxation or Adjustment Event Termination*) or Section 14 of the General Conditions (*Modifications*), (ii) an ordinary termination pursuant to Section 11 of the General Conditions (*Ordinary Termination Right of the Issuer*) (to the extent the applicable Issue Specific Provisions provide an ordinary termination right of the Issuer) or (iii) the occurrence of a Knock-Out Event and/or a Stop-Loss Event (to the extent the Securities are structured with a Knock-Out Barrier and/or a Stop-Loss Barrier):

- (a) if "European Style" has been specified to apply in Part B (General Terms) of the applicable Issue Specific Conditions, the Valuation Date; and
- (b) if "American Style" has been specified to apply in Part B (General Terms) of the applicable Issue Specific Conditions, the Exercise Business Day during the Exercise Period on which the Securities are duly exercised.

"**Exercise Period**" is set out in Part B (General Terms) of the applicable Issue Specific Conditions.

"**Exercise Style**" is set out in Part B (General Terms) of the applicable Issue Specific Conditions.

"**Exercise Time**" is the time set out in Part B (General Terms) of the applicable Issue Specific Conditions.

Section 3 – Settlement

(1) **Settlement**

Any cash amounts payable by the Issuer shall be transferred to the Relevant Clearing System for distribution to the Holder. The Issuer will be discharged of its payment and/or delivery obligations by payment and/or delivery to, or to the order of, the Relevant Clearing System (or a depository or nominee thereof) in respect of the amount so paid or delivered.

Where Settlement means Cash Settlement, the Issuer shall on and for value on the Maturity Date, transfer an amount equal to the aggregate Settlement Amount of the duly exercised Securities to the account of the Programme Agent, whereupon the Programme Agent shall

transfer such amount to the account at the Relevant Clearing System specified in the relevant Exercise Notice for value on the Maturity Date.

If, however, Settlement means Physical Settlement, then, after exercise in respect of any Security and the payment of any applicable Taxes as aforesaid from the relevant account of the Holder to the relevant account of the Programme Agent (in favour of the Issuer), the Issuer and/or the Delivery Agent shall, on the relevant Maturity Date, transfer or procure the transfer of the Reference Asset Amount in respect of the relevant Securities for credit to the account of the relevant Holder.

(2) **Specified Currency Conversion**

Any cash amount payable by the Issuer shall be paid in the Specified Currency. If payment of any amount to a Holder, according to the rules of the Relevant Clearing System, cannot be made in the Specified Currency, such payment shall be made in the currency principally used by the Relevant Clearing System for payments to holders holding accounts with such Relevant Clearing System, following a conversion of the relevant amount from the Specified Currency.

(3) **Payments on Payment Days**

If any date for payment of any amount by the Issuer in respect of any Security is not a Payment Day, the Holder thereof shall not be entitled to payment until the next following Payment Day and shall not be entitled to any interest or other payment in respect of such delay.

As used herein, a "**Payment Day**" means, unless otherwise defined in Part B (General Terms) of the applicable Issue Specific Conditions a day which is:

- (a) a day on which each Relevant Clearing System is open for business; and
- (b) either (i) in relation to any sum payable in a currency other than euro, a day (other than a Saturday or Sunday) on which commercial banks and foreign exchange markets settle payments and are open for general business (including dealings in foreign exchange and foreign currency deposits) in the principal financial centre of the country of such currency or (ii) in relation to any sum payable in euro, a day on which the real time gross settlement system operated by the Eurosystem or any successor thereto (T2) is open.

(4) **Deliveries**

Any deliveries of any Reference Asset Amount due under any Security shall be made at the risk of the relevant Holder and shall be transferred to the Relevant Clearing System for delivery to the relevant Holder, provided that where the Calculation Agent determines in its reasonable discretion that the delivery by the Issuer is fully or partly impractical, illegal or unduly onerous to the Issuer, then the Calculation Agent shall have the option to determine that the Issuer will make the delivery of any Reference Asset Amount in such other commercially reasonable manner as the Calculation Agent may determine to be appropriate for such delivery and shall notify the Holders in accordance with Section 16 of the General Conditions (*Notices*). Any Reference Asset Amount to be delivered shall be evidenced in such manner as the Issuer determines to be customary for the relevant Reference Asset Amount. The Issuer shall be under no obligation to register or procure the registration of any Holder or any other person as the registered holder in respect of the amount to be delivered in any register of holders, including, but not limited to, a register of members of a share company.

(5) **Payment Disruption**

In the event that the Calculation Agent, at any time and from time to time, determines in its reasonable discretion that a Payment Disruption Event has occurred or is likely to occur, then the Calculation Agent shall as soon as practicable notify the Holders of the relevant Securities of the occurrence of a Payment Disruption Event in accordance with Section 16 of the General Conditions (*Notices*). Upon the occurrence of a Payment Disruption Event:

(a) *Extension of relevant dates*

The Maturity Date, the Coupon Payment Date (if applicable) or any other date on which the Securities may be exercised or redeemed or any amount shall be due and payable in respect of the relevant Securities shall, subject to Section 3(5)(d) of the General Conditions (*Payment Event Cut-off Date and Payment Event Payment Date*), be extended to a date falling 14 calendar days (or such other date as may be determined by the Calculation Agent and notified to the Holders in accordance with Section 16 of the General Conditions (*Notices*) after the date on which the Payment Disruption Event is no longer occurring and notice thereof shall be given to the relevant Holders in accordance with Section 16 of the General Conditions (*Notices*).

(b) *Obligation to pay postponed*

The Issuer's obligation to pay the Settlement Amount, Coupon Amount (if applicable) or any such other amounts in respect of the relevant Securities (the "**Affected Amount**"), subject to Section 3(5)(d) of the General Conditions (*Payment Event Cut-off Date and Payment Event Payment Date*), shall be postponed until 14 calendar days (or such other date as may be determined by the Calculation Agent and notified to the Holders in accordance with Section 16 of the General Conditions (*Notices*) after the date on which the Payment Disruption Event is no longer operating. Notwithstanding the foregoing, the Issuer may, in its reasonable discretion, elect to satisfy in part its obligation to pay the amounts as may be due and payable under the relevant Securities by making a partial payment(s) (the "**Partial Distributions**"). Any Partial Distribution made by the Issuer to the Holders will be calculated and/or determined by the Calculation Agent in its reasonable discretion and shall be paid to the Holders *pro rata* to the proportion of the Securities of the same series held by the relevant Holder. In the event that any Partial Distribution is made by the Issuer, the Calculation Agent may, in its reasonable discretion, make any such corresponding adjustment to any variable relevant to the settlement, redemption or payment terms of the relevant Securities as it deems necessary and shall notify the relevant Holders thereof in accordance with Section 16 of the General Conditions (*Notices*).

(c) *Payments net of expenses*

Notwithstanding any provisions to the contrary, (i) any payments made in accordance with this Section 3 of the General Conditions (*Settlement*) shall be made after deduction of any costs, expenses or liabilities incurred or to be incurred by the Calculation Agent or Issuer in connection with or arising from the resolution of the relevant Payment Disruption Event and (ii) a Holder shall not be entitled to any payment, whether of interest or otherwise, on the Securities in the event of any delay which may occur in the payment of any amounts due and payable under the Securities as a result of the operation of this Section 3 of the General Conditions (*Settlement*) and no liability in respect thereof shall attach to the Issuer.

(d) *Payment Event Cut-off Date and Payment Event Payment Date*

In the event that a Payment Disruption Event is still occurring on the Payment Event Cut-off Date, then the Maturity Date, the Coupon Payment Date (if applicable) or any other date for the relevant Securities in respect of which redemption amounts in relation to any of the Securities would otherwise be due and payable but for the occurrence of such Payment Disruption Event shall be postponed to the Payment Event Payment Date and the Calculation Agent shall determine the USD Equivalent Amount of the Affected Amount based on the USD/Affected Currency Exchange Rate as of the Payment Disruption Valuation Date and Issuer shall make payment of the USD Equivalent Amount of the Affected Amount on the Payment Event Payment Date in full and final settlement of its obligations to pay such Affected Amount in respect of the Securities. The Calculation Agent shall as soon as practicable after the Payment Event Cut-off Date notify the Holders of the time on the Payment Disruption Valuation Date on which the USD/Affected Currency Exchange Rate will be determined. In the event the Calculation Agent is unable to determine the USD Equivalent Amount in respect of the Affected Amount on the Payment Disruption Valuation Date, the Holders will not receive any amounts. Thereafter, the Issuer shall have no obligations whatsoever under the Securities.

(e) *Amendment*

Notwithstanding any other provision in this Section 3 of the General Conditions (*Settlement*), in the event that the Calculation Agent (acting in its reasonable discretion) determines that (i) the Payment Disruption Event(s) has (or there is a substantial likelihood that it (or they, if more than one such event) will have) a material impact on the Issuer's ability to make full and lawful payment of the amounts due under the Securities and/or the Holders' rights to receive such payment and that (ii) such Payment Disruption Event(s) have been in existence for at least 14 days from original occurrence (and remain subsisting) or that based on publicly available information there is not a substantial likelihood that the Payment Disruption Event(s) will no longer be occurring within 14 days of original occurrence, then the Calculation Agent may determine that the Conditions of the Securities shall be amended as appropriate to account for the Payment Disruption Event(s) in order to eliminate or ameliorate the impact of the Payment Disruption Event(s) on the payment of the amounts due under the Securities and receipt thereof (which amendment(s) may include, without limitation, the conversion of the amount(s) payable under the Securities into USD, EUR or another major currency, at a rate of exchange determined by the Calculation Agent (acting in its reasonable discretion) at the time of the amendment(s) or prior to each relevant payment). In such case, the Issuer shall amend the Conditions of the Securities without the consent of the Holders, and such amendment shall take effect in accordance with its terms and be binding on the Holders and shall be notified to the Holders in accordance with Section 16 of the General Conditions (*Notices*) as soon as practicable (but failure to give such notice, or non-receipt thereof, shall not affect the validity of such amendment).

(6) **Settlement Disruption**

If and to the extent that any delivery of any Reference Asset Amount becomes due under a Security and (i) if the Maturity Date is not a Payment Day and/or (ii) prior to such delivery of any Reference Asset Amount an event beyond the control of the Issuer occurs as a result of which the Issuer cannot make such delivery in accordance with these General Conditions at the relevant time for such delivery (a "**Settlement Disruption Event**"), then the Maturity Date for such delivery of the relevant Reference Asset Amount shall be postponed to the first following Payment Day on which no such event is subsisting.

For so long as the Settlement Disruption Event is subsisting, then in lieu of the affected delivery of the relevant Reference Asset Amount and notwithstanding any other provision hereof, the Issuer may elect in its reasonable discretion to satisfy this obligation in respect of the relevant Security by payment to the relevant Holder of the Disruption Settlement Amount on the third Payment Day following the date that notice of such election is given to the Holders in accordance with Section 16 of the General Conditions (*Notices*). Payment of the Disruption Settlement Amount will be made in such manner as will be notified in accordance with Section 16 of the General Conditions (*Notices*). The Calculation Agent shall give notice as soon as practicable in accordance with Section 16 of the General Conditions (*Notices*) that a Settlement Disruption Event has occurred.

No Holder or any other person shall be entitled to any payment in respect of a Security as a result of any delay in a delivery of any Reference Asset Amount due to the occurrence of a Settlement Disruption Event, and no liability in respect thereof shall attach to the Issuer and/or the Calculation Agent.

(7) **Consequences of an Index Cessation/Benchmark Event, USD LIBOR Benchmark Transition Event or Administrator/Benchmark Event**

(i) *Index Cessation/Benchmark Event:*

- (A) Subject to the provisions in Section 3(7)(ii) of the General Conditions (*USD LIBOR Benchmark Transition Event*) and to paragraph (B) below and notwithstanding anything else in the General Conditions, if the Calculation Agent determines that an Index Cessation/Benchmark Event and its related Index Cessation/Benchmark Event Effective Date have occurred or are existing on any day in respect of any Securities, then the Calculation Agent shall

determine the Coupon or the Reference Rate for the relevant period (as applicable) in its reasonable discretion and in a commercially reasonable manner, after consulting any source it deems to be reasonable, as:

- (1) a substitute or successor rate, index, benchmark or other price source that it has determined is the industry-accepted standard in any related market (including, without limitation, the derivatives market) substitute or successor rate, index, benchmark or other price source for the relevant Reference Rate; or
- (2) if it determines there is no such industry-accepted standard in any related market (including, without limitation, the derivatives market) substitute or successor rate, index, benchmark or other price source, a substitute or successor rate, index, benchmark or other price source that it determines is a commercially reasonable alternative to the Reference Rate, taking into account prevailing industry standards in any related market (including, without limitation, the derivatives market)

in each case provided that (i) any such substitute or successor rate, index, benchmark or other price source may (without limitation) comprise a replacement rate, index, benchmark or other price source which is determined on a backwards-looking compounding basis by reference to a "risk-free rate", (ii) there may be more than one such substitute or successor rate, index, benchmark or other price source (which may be applied as of one or more effective dates), (iii) the Coupon or the Reference Rate, as applicable, may include an adjustment factor or adjustment spread pursuant to the paragraph immediately below and (iv) the Conditions may be subject to adjustment pursuant to the paragraph immediately below.

Subject to the provisions in Section 3(7)(ii) of the General Conditions (*USD LIBOR Benchmark Transition Event*) below, if the Calculation Agent determines the Coupon or the Reference Rate, as applicable, in accordance with this Section 3(7)(i)(A) of the General Conditions it may make such adjustment(s) that it determines in its reasonable discretion to be appropriate, if any, to any variable, calculation methodology, valuation, settlement, payment terms or any other terms of the Securities to account for such change to the method of determination of the Coupon or the Reference Rate, as applicable, including (but not limited to) any such adjustment(s) that the Calculation Agent determines in its reasonable discretion are required in order to reduce or eliminate, to the extent reasonably practicable, any change in the economic value of the Securities from such change to the method of determination of the Coupon or the Reference Rate, as applicable. Any such adjustment(s) which the Calculation Agent determines to be appropriate (1) shall be made to the extent reasonably practicable, but also taking into account prevailing industry standards in any related market (including, without limitation, the derivatives market), (2) may include an adjustment factor and/or adjustment spread (which may be positive or negative) together with any technical, administrative or operational changes and (3) may be applied on more than one occasion and may be made as of one or more effective dates.

- (B) If the Calculation Agent determines in its reasonable discretion that the application of this Section 3(7)(i)(A) of the General Conditions would not achieve a commercially reasonable result (because it is not possible or commercially reasonable to identify a replacement or successor rate, index, benchmark or other price source, or relevant adjustments or for any other reason) and/or (ii) is or would be unlawful at any time under any applicable law or regulation or it would contravene any applicable licensing requirements to determine the Coupon or the Reference Rate, as applicable, in accordance with the terms of such provisions, the Calculation Agent may determine that the Securities shall be early redeemed. The Issuer shall give notice to the Holders in accordance with Section 16 of the General Conditions (*Notices*) designating the

early payment date (the "**Early Payment Date**"). In the case of an early redemption the Issuer will cause to be paid to each Holder in respect of each Security held by it an amount equal to the Early Payment Amount (as defined under Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*)), provided that the words "(but ignoring the event which resulted in such early redemption)" shall be deleted). Payment of the Early Payment Amount will be made in such manner as shall be notified to the Holders in accordance with Section 16 of the General Conditions (*Notices*).

- (ii) *USD LIBOR Benchmark Transition Event*: Notwithstanding anything else in the Conditions, if the relevant Reference Rate in respect of any Securities is a USD LIBOR Benchmark Rate (of any tenor) and the Calculation Agent determines that a Benchmark Transition Event and its related Benchmark Replacement Date have occurred prior to the Reference Time in respect thereof on any date of determination of the Reference Rate or other variable or amount under the Conditions that depends on the determination of a USD LIBOR Benchmark Rate, then:
 - (A) the provisions of the Section 3(12) of the General Conditions (*USD LIBOR Benchmark Transition Event Definitions*) shall apply in respect of the Securities in relation to such USD LIBOR Benchmark Rate; and
 - (B) the provisions of Section 3(7)(i) of the General Conditions (*Index Cessation/Benchmark Event*) shall not apply in respect of the Securities in respect of such USD LIBOR Benchmark Rate.

If both a Benchmark Transition Event and an Administrator/Benchmark Event have occurred and are occurring, then it shall be deemed that only a Benchmark Transition Event has occurred.

For the purposes of this sub-paragraph (ii), each of "**Benchmark Replacement Date**", "**Benchmark Transition Event**", "**Reference Time**" and "**USD LIBOR Benchmark Rate**" have the respective meanings given to those terms in Section 3(12) of the General Conditions (*USD LIBOR Benchmark Transition Event Definitions*).

- (iii) *Administrator/Benchmark Event*: If the Calculation Agent determines in its reasonable discretion that an Administrator/Benchmark Event and its related Administrator/Benchmark Event Effective Date have occurred or are existing on any day in respect of any Securities and a Relevant Benchmark, the Calculation Agent may:
 - (A) make such adjustment to the terms of the Securities as the Calculation Agent determines appropriate to account for the economic effect on the Securities of such Administrator/Benchmark Event (including without limitation, to select a successor Relevant Benchmark) and any adjustment(s) that it determines to be appropriate, if any, to any variable, calculation methodology, valuation, settlement, payment terms or any other terms of the Securities to account for such replacement and/or change to the method of determination of the Reference Rate, including (but not limited to) any such adjustment(s) that the Calculation Agent determines are required in order to reduce or eliminate, to the extent reasonably practicable, any change in the economic value of the Securities from such replacement and/or change to the method of determination of the Reference Rate;
 - (B) determine that the Securities shall be early redeemed. The Issuer shall give notice to the Holders in accordance with Section 16 of the General Conditions (*Notices*) designating the early payment date (the "**Early Payment Date**"). In the case of an early redemption the Issuer will cause to be paid to each Holder in respect of each Security held by it an amount equal to the Early Payment Amount (as defined under Section 10(7) of the General Conditions (*Events of*

Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions), provided that the words "(but ignoring the event which resulted in such early redemption)" shall be deleted). Payment of the Early Payment Amount will be made in such manner as shall be notified to the Holders in accordance with Section 16 of the General Conditions (*Notices*).

Notwithstanding anything else in this Section 3 (7)(iii), in the event that the Administrator/Benchmark Event comprises a Material Methodology Change Event, the Calculation Agent may determine not to undertake any or all of the actions described in this Section 3 (7)(iii).

(8) **Changes in a Relevant Benchmark**

If the methodology or formula for the Relevant Benchmark in respect of any Securities or any other means of calculating the Relevant Benchmark, is changed (irrespective of the materiality of any such change or changes), then for the avoidance of doubt references to the Relevant Benchmark in respect of such Securities shall remain as the Relevant Benchmark notwithstanding such changes.

(9) **Taxation, other laws and regulation**

All payments and/or deliveries will be subject in all cases to (a) any fiscal or other laws and regulations applicable thereto in the place of payment and/or delivery (including, where applicable, laws requiring the deduction or withholding for, or on account of, any tax, duty or other charge whatsoever) and (b) any taxes, including any withholding or deduction required pursuant to an agreement described in Section 1471(b) of the U.S. Internal Revenue Code of 1986 (the "**Code**") or otherwise imposed pursuant to Sections 1471 through 1474 of the Code and any regulations or agreements thereunder or official interpretations thereof ("**FATCA**") or any law implementing an intergovernmental approach to FATCA.

(10) **Disclaimer as to Relevant Clearing Systems and their agents and operators**

Any description in these General Conditions as to payments being made or any other actions or duties being undertaken by any Relevant Clearing System (or its agents or operators) is based solely on the Issuer's understanding of the relevant rules and/or operations of such Relevant Clearing System (and its agents and operators). The Issuer does not make any representation or warranty that such information is accurate or, in any event, that the Relevant Clearing System (or its agents or operators) will make such payments or undertake such actions or duties in accordance with such description. Accordingly, notwithstanding anything else herein, none of the Issuer, the Programme Agent, the Calculation Agent or the Agents has any responsibility for the performance by any Relevant Clearing System (or its agents or operators) of their respective payment, delivery, Holder identification, or other obligations in respect of the Securities as described herein and/or under the rules and procedures governing their operations.

(11) **Definitions**

"**Administrator/Benchmark Event**" means, in respect of any Securities and a Relevant Benchmark, the occurrence or existence, as determined by the Calculation Agent, of any of the following events in respect of such Relevant Benchmark:

- (a) any authorisation, registration, recognition, endorsement, equivalence decision, approval or inclusion in any official register in respect of a Relevant Benchmark or the administrator or sponsor of a Relevant Benchmark has not been, or will not be, obtained or has been, or will be, rejected, refused, suspended or withdrawn by the relevant competent authority or other relevant official body, or any prohibition by a relevant competent authority or other relevant official body, in each case with the effect that the Issuer and/or the Calculation Agent (as applicable) and/or any other relevant entity is not, or will not be, permitted under any applicable law or regulation

to use the Relevant Benchmark to perform its or their respective obligations under the Securities; or

- (b) any material change to the methodology or formula for the Relevant Benchmark or any other means of calculating the Relevant Benchmark, as determined by the Calculation Agent ("**Material Methodology Change Event**").

"Administrator/Benchmark Event Effective Date" means:

- (a) in the case of paragraph (a) of the definition of "Administrator/Benchmark Event", the date from which the Relevant Benchmark may no longer be used under any applicable law or regulation by the Issuer and/or the Calculation Agent (as applicable) and/or any other relevant entity to perform its or their respective obligations under the Securities; or
- (b) in the case of paragraph (b) of the definition of "Administrator/Benchmark Event", the date on which the change to the methodology or formula for the Relevant Benchmark becomes effective.

"Disruption Settlement Amount" means such amount as specified in Part B (General Terms) of the Issue Specific Conditions, or, if the relevant Issue Specific Conditions specify "**Fair Market Value of Security**", an amount equal to the fair market value of the relevant Security (but not taking into account any interest accrued on any Security) on such day as shall be selected by the Calculation Agent in its reasonable discretion adjusted to take account fully for any losses, expenses and costs to the Issuer and/or any affiliate of the Issuer of unwinding or adjusting any underlying or related hedging arrangements (including but not limited to any options or selling or otherwise realising any relevant Share or other instruments or assets of any type whatsoever which the Issuer and/or any of its affiliates may hold as part of such hedging arrangements), all as calculated by the Calculation Agent.

"Index Cessation/Benchmark Event" means, in respect of any Securities and a Reference Rate (each, the "**Applicable Rate**"), the occurrence or existence, as determined by the Calculation Agent, of one or more of the following events:

- (i) a public statement or publication of information by or on behalf of the administrator of the Applicable Rate announcing that it has ceased or will cease to provide the Applicable Rate permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide the Applicable Rate;
- (ii) a public statement or publication of information by the regulatory supervisor for the administrator of the Applicable Rate, the central bank for the currency of the Applicable Rate, an insolvency official with jurisdiction over the administrator for the Applicable Rate, a resolution authority with jurisdiction over the administrator for the Applicable Rate or a court or an entity with similar insolvency or resolution authority over the administrator for the Applicable Rate, which states that the administrator of the Applicable Rate has ceased or will cease to provide the Applicable Rate permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide the Applicable Rate; or
- (iii) a public statement or publication of information by the regulatory supervisor for the administrator of such Applicable Rate announcing that the regulatory supervisor has determined that such Applicable Rate is no longer, or as of a specified future date will no longer be, representative of the underlying market and economic reality that such Applicable Rate is intended to measure and that representativeness will not be restored.

"Index Cessation/Benchmark Event Effective Date" means the earliest to occur of the following events with respect to the then-current relevant Applicable Rate:

- (i) in the case of paragraph (i) or (ii) of the definition of "Index Cessation/Benchmark Event", the later of (a) the date of the public statement or publication of information

referenced therein and (b) the date on which the administrator of the Applicable Rate permanently or indefinitely ceases to provide the Applicable Rate;

- (ii) in the case of paragraph (iii) of the definition of "Index Cessation/Benchmark Event", the later of (a) the date of the public statement or publication of information referenced therein and (b) the date on which the Applicable Rate ceases to be representative by reference to the most recent public statement or publication of information referenced therein or, if earlier, the date the Applicable Rate is no longer provided.

For the avoidance of doubt, if the event giving rise to the Index Cessation/Benchmark Event Effective Date occurs on the same day as, but earlier than, the relevant time in respect of any determination, the Index Cessation/Benchmark Event Effective Date will be deemed to have occurred prior to the relevant time for such determination.

"Material Methodology Change Event" has the meaning given in the definition of "Administrator/Benchmark Event" above.

"Payment Disruption Event" means any of the following:

- (a) an event in relation to a Relevant Payment Jurisdiction which has the effect of preventing, restricting or delaying the Calculation Agent or Issuer from:
 - (i) converting a Relevant Currency into another Relevant Currency through customary legal channels; or
 - (ii) converting a Relevant Currency into another Relevant Currency at a rate at least as favourable as the rate for domestic institutions located in the Relevant Payment Jurisdiction; or
 - (iii) delivering any Relevant Currency from accounts inside the Relevant Payment Jurisdiction to accounts outside the Relevant Payment Jurisdiction; or
 - (iv) delivering a Relevant Currency between accounts inside the Relevant Payment Jurisdiction or to a party that is a non-resident of the Relevant Payment Jurisdiction;
- (b) the imposition by the Relevant Payment Jurisdiction (or any political or regulatory authority thereof) of any capital controls, or the publication of any notice of an intention to do so, which the Calculation Agent determines is likely to materially affect the Securities, and notice thereof is given by the Issuer to the Holders in accordance with Section 16 of the General Condition (*Notices*);
- (c) the implementation by the Relevant Payment Jurisdiction (or any political or regulatory authority thereof) or the publication of any notice of an intention to implement any changes to the laws or regulations relating to foreign investment in the Relevant Payment Jurisdiction (including, but not limited to, changes in tax laws and/or laws relating to capital markets and corporate ownership), which the Calculation Agent determines are likely to affect materially the Issuer's ability to hedge its obligations under the Securities;
- (d) an event as a result of which the Issuer is prohibited, unable, or otherwise fails to make any payment, or any portion thereof under the Securities, or to perform any other obligation under the Securities because or arising out of an act of war, insurrection or civil strife, an action by any government or governmental authority or instrumentality thereof (whether *de jure* or *de facto*), legal constraint, terrorism, riots or catastrophe; and
- (e) it becomes impossible or commercially impracticable (or the Calculation Agent, acting in its reasonable discretion, determines that there is a substantial likelihood that it will become impossible or commercially impracticable) to make payment under the Securities through a Relevant Clearing System (including, without limitation, where a Relevant Clearing System withdraws (or announces its intention to withdraw)

acceptance of the Specified Currency of the Securities for settlement and payment of interest and/or redemption under the Securities).

"Payment Disruption Valuation Date" means, in respect of a Payment Event Payment Date, the second Payment Day immediately preceding such Payment Event Payment Date, as determined by the Calculation Agent.

"Payment Event Cut-off Date" means the date which is one year after the Maturity Date or any other date which is the last date on which amounts under the Securities would be due and payable by the Issuer if not for the occurrence of a Payment Disruption Event, as determined by the Calculation Agent.

"Payment Event Payment Date" means, in respect of a Payment Event Cut-off Date, the tenth Payment Day immediately following the Payment Event Cut-off Date, as determined by the Calculation Agent.

"Reference Dealers" means four leading dealers in the relevant foreign exchange market, as determined by the Calculation Agent.

"Relevant Benchmark" means, in respect of any Securities, a Coupon, Reference Rate, Exchange Rate or any rate, level, value or other figure in respect of one or more Reference Assets utilised in order to determine the Coupon Amount, Reference Asset Amount, Settlement Amount or any other amount payable or asset deliverable under the Securities, in each case, which is a "benchmark" for the purposes of Regulation (EU) 2016/1011 of the European Parliament and the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds and amending directives 2008/48/EC and 2014/17/EU and Regulation (EU) 596/2014 (as may be amended from time to time, the **"Benchmark Regulation"**), as determined by the Calculation Agent.

"Relevant Clearing System" means Clearstream Banking AG, Frankfurt am Main, Mergenthalerallee 61, 65760 Eschborn, Germany or any other relevant clearing system set out in Part B (General Terms) of the applicable Issue Specific Conditions.

"Relevant Currency" means the currency specified as such in Part B (General Terms) of the relevant Issue Specific Conditions.

"Relevant Payment Jurisdiction" means such jurisdiction(s) as determined by the Calculation Agent in its discretion.

"USD/Affected Currency Exchange Rate" means, in respect of any relevant day, the spot USD/Affected Currency exchange rate, expressed as an amount of the Affected Currency per unit of USD, as reported or published by the fixing price sponsor at the relevant time on such day, provided that if no such rate is available on such day, then the Calculation Agent may request each of the Reference Dealers to provide a firm quotation of the rate at which it will buy one unit of USD in an amount of Affected Currency at the applicable time on such day, based upon each Reference Dealer's experience in the foreign exchange market for Affected Currency and general activity in such market on such day. If at least two quotations are provided, the relevant rate will be the arithmetic mean of such quotations. If fewer than two quotations are provided, the Calculation Agent may request each of the major banks (as selected by the Calculation Agent) in the relevant market to provide a quotation of the rate at which it will buy one unit of USD in an amount of the Affected Currency at the applicable time on such day. If fewer than two quotations are provided, then the Calculation Agent shall determine the USD/Affected Currency Exchange Rate as of the applicable time on such day in its reasonable discretion.

"USD Equivalent Amount" means, in respect of an Affected Amount and the Payment Event Payment Date, an amount in USD determined by the Calculation Agent by converting the Affected Amount from the currency in which such Affected Amount is denominated in (such currency, the **"Affected Currency"**) into USD using the USD/Affected Currency Exchange Rate on the Payment Disruption Valuation Date in respect of such Payment Event Payment Date, as determined by the Calculation Agent.

(12) **USD LIBOR Benchmark Transition Event Definitions**

The provisions of this Section 3(12) apply in the circumstances set out in Section 3(7)(ii) of the General Conditions (*USD LIBOR Benchmark Transition Event*).

- (a) *Benchmark Replacement*: If the Calculation Agent determines that a Benchmark Transition Event and its related Benchmark Replacement Date have occurred prior to the Reference Time in respect of any determination of the relevant Benchmark Rate on any date for the purposes of the determination of the Coupon or Reference Rate or other variable or amount under the Conditions that depends on the determination of Benchmark Rate, the Benchmark Replacement will replace the then-current Benchmark Rate for all purposes relating to the Securities during the applicable Coupon Period or other period or at the relevant time (as applicable), in respect of such determination on such date and all determinations on all subsequent dates under the Securities.
- (b) *Benchmark Replacement Conforming Changes*: In connection with the implementation of a Benchmark Replacement, the Issuer or the Calculation Agent may make Benchmark Replacement Conforming Changes from time to time.
- (c) For the purposes of this Section 3(12) only, unless the context otherwise requires, the following terms shall have the respective meanings set out below:

"Benchmark Rate" means, initially, USD LIBOR of the appropriate tenor; provided that if a Benchmark Transition Event and its related Benchmark Replacement Date have occurred with respect to USD LIBOR or the then-current Benchmark Rate, then "Benchmark Rate" means the applicable Benchmark Replacement.

"Benchmark Replacement" means the Interpolated Benchmark with respect to the then-current Benchmark Rate, plus the Benchmark Replacement Adjustment for such Benchmark Rate; provided that if the Calculation Agent cannot determine the Interpolated Benchmark as of the Benchmark Replacement Date, then "Benchmark Replacement" means the first alternative set forth in the order below that can be determined by the Calculation Agent as of the Benchmark Replacement Date:

- (i) the sum of: (i) Term SOFR and (ii) the Benchmark Replacement Adjustment;
- (ii) the sum of: (i) Compounded SOFR and (ii) the Benchmark Replacement Adjustment;
- (iii) the sum of: (i) the alternate rate of interest that has been selected or recommended by the Relevant Governmental Body as the replacement for the then-current Benchmark Rate for the applicable Corresponding Tenor and (ii) the Benchmark Replacement Adjustment;
- (iv) the sum of: (i) the ISDA Fallback Rate and (ii) the Benchmark Replacement Adjustment;
- (v) the sum of: (i) the alternate rate of interest that has been selected by the Issuer or the Calculation Agent as the replacement for the then-current Benchmark Rate for the applicable Corresponding Tenor giving due consideration to any industry-accepted rate of interest as a replacement for the then-current Benchmark Rate for U.S. dollar-denominated floating rate notes at such time and (ii) the Benchmark Replacement Adjustment.

"Benchmark Replacement Adjustment" means the first alternative set forth in the order below that can be determined by the Calculation Agent as of the Benchmark Replacement Date:

- (i) the spread adjustment (which may be a positive or negative value or zero), or method for calculating or determining such spread adjustment, that has been

selected or recommended by the Relevant Governmental Body for the applicable Unadjusted Benchmark Replacement;

- (ii) if the applicable Unadjusted Benchmark Replacement is equivalent to the ISDA Fallback Rate, then the ISDA Fallback Adjustment;
- (iii) the spread adjustment (which may be a positive or negative value or zero) that has been selected by the Issuer or the Calculation Agent giving due consideration to any industry-accepted spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of the then-current Benchmark Rate with the applicable Unadjusted Benchmark Replacement for U.S. dollar-denominated floating rate notes at such time.

"Benchmark Replacement Conforming Changes" means, with respect to any Benchmark Replacement, any technical, administrative or operational changes (including without limitation changes to the definition of "Coupon Period" or any other applicable periods and dates, as the case may be, timing and frequency of determining rates and making payments of interest or coupon, rounding of amounts or tenors, the introduction of any time delay or lag between the calculation or observation period of a rate and the related payment dates and other administrative matters) that the Calculation Agent determines is appropriate to reflect the adoption of such Benchmark Replacement in a manner substantially consistent with market practice (or, if the Calculation Agent determines that adoption of any portion of such market practice is not administratively feasible or if the Calculation Agent determines that no market practice for use of the Benchmark Replacement exists, in such other manner as the Calculation Agent determines is reasonably necessary).

"Benchmark Replacement Date" means the earliest to occur of the following events with respect to the then-current relevant Benchmark Rate:

- (i) in the case of paragraph (a) or (b) of the definition of "Benchmark Transition Event", the later of (i) the date of the public statement or publication of information referenced therein and (ii) the date on which the administrator of the Benchmark Rate permanently or indefinitely ceases to provide the Benchmark Rate; or
- (ii) in the case of paragraph (c) of the definition of "Benchmark Transition Event", the later of (i) the date of the public statement or publication of information referenced therein and (ii) the date on which the Benchmark Rate ceases to be representative by reference to the most recent public statement or publication of information referenced therein or, if earlier, the date the Benchmark Rate is no longer provided.

For the avoidance of doubt, if the event giving rise to the Benchmark Replacement Date occurs on the same day as, but earlier than, the Reference Time in respect of any determination, the Benchmark Replacement Date will be deemed to have occurred prior to the Reference Time for such determination.

"Benchmark Transition Event" means the occurrence of one or more of the following events with respect to the then-current Benchmark Rate:

- (i) a public statement or publication of information by or on behalf of the administrator of the Benchmark Rate announcing that such administrator has ceased or will cease to provide the Benchmark Rate, permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide the Benchmark Rate;
- (ii) a public statement or publication of information by the regulatory supervisor for the administrator of the Benchmark Rate, the central bank for the currency of the Benchmark Rate, an insolvency official with jurisdiction over the administrator for the Benchmark Rate, a resolution authority with jurisdiction

over the administrator for the Benchmark Rate or a court or an entity with similar insolvency or resolution authority over the administrator for the Benchmark Rate, which states that the administrator of the Benchmark Rate has ceased or will cease to provide the Benchmark Rate permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide the Benchmark Rate; or

- (iii) a public statement or publication of information by the regulatory supervisor for the administrator of the Benchmark Rate announcing that the Benchmark Rate is no longer representative, or as of a specified future date will no longer be capable of being representative, of the market or economic reality that such Benchmark Rate is intended to measure.

"Compounded SOFR" means the compounded average of SOFRs for the applicable Corresponding Tenor, with the rate, or methodology for this rate, and conventions for this rate being established by the Issuer or the Calculation Agent in accordance with:

- (i) the rate, or methodology for this rate, and conventions for this rate selected or recommended by the Relevant Governmental Body for determining compounded SOFR; provided that:
- (ii) if, and to the extent that, the Issuer or the Calculation Agent determines that Compounded SOFR cannot be determined in accordance with clause (a) above, then the rate, or methodology for this rate, and conventions for this rate that have been selected by it giving due consideration to any industry-accepted market practice for U.S. dollar-denominated floating rate notes at such time.

For the avoidance of doubt, the calculation of Compounded SOFR will exclude the Benchmark Replacement Adjustment and the margin of 101 basis points (1.01%).

"Corresponding Tenor" with respect to a Benchmark Replacement means a tenor (including overnight) having approximately the same length (disregarding business day adjustment) as the applicable tenor for the then-current Benchmark Rate.

"Federal Reserve Bank of New York's Website" means the website of the Federal Reserve Bank of New York at <http://www.newyorkfed.org>, or any successor source. Information contained in the Federal Reserve Bank of New York's Website is not incorporated by reference in, and should not be considered part of, this Base Prospectus.

"Interpolated Benchmark" with respect to the Benchmark Rate means the rate determined for the Corresponding Tenor by interpolating on a linear basis between: (1) the Benchmark Rate for the longest period (for which the Benchmark Rate is available) that is shorter than the Corresponding Tenor and (2) the Benchmark Rate for the shortest period (for which the Benchmark Rate is available) that is longer than the Corresponding Tenor.

"ISDA Fallback Adjustment" means the spread adjustment (which may be a positive or negative value or zero) that would apply for derivatives transactions referencing the Relevant ISDA Definitions to be determined in relation to the occurrence of an index cessation event with respect to the Benchmark Rate for the applicable tenor.

"ISDA Fallback Rate" means the rate that would apply for derivatives transactions referencing the Relevant ISDA Definitions to be effective in relation to the occurrence of an index cessation event with respect to the Benchmark Rate for the applicable tenor excluding the applicable ISDA Fallback Adjustment.

"Reference Time" with respect to any determination of the Benchmark Rate means (1) if the Benchmark Rate is USD LIBOR, 11:00 a.m. (London time) on the relevant

determination date and (2) if the Benchmark Rate is not USD LIBOR, the time determined by the Calculation Agent in accordance with the Benchmark Replacement Conforming Changes.

"Relevant Governmental Body" means the Federal Reserve Board and/or the Federal Reserve Bank of New York, or a committee officially endorsed or convened by the Federal Reserve Board and/or the Federal Reserve Bank of New York or any successor thereto.

"Relevant ISDA Definitions" means the 2006 ISDA Definitions published by the International Swaps and Derivatives Association, Inc. or any successor thereto, as amended or supplemented from time to time, or any successor definitional booklet for interest rate derivatives published from time to time.

"SOFR" with respect to any day means the secured overnight financing rate published for such day by the Federal Reserve Bank of New York, as the administrator of the benchmark, (or a successor administrator) on the Federal Reserve Bank of New York's Website.

"Term SOFR" means the forward-looking term rate for the applicable Corresponding Tenor based on SOFR that has been selected or recommended by the Relevant Governmental Body.

"Unadjusted Benchmark Replacement" means the Benchmark Replacement excluding the Benchmark Replacement Adjustment.

"USD LIBOR" or **"USD LIBOR Benchmark Rate"** means the London inter-bank offered rate for deposits in USD.

Section 4 – Coupon Payments

(1) **Coupon Payment**

(a) No Coupon Amount

Unless **"Coupon Payment"** is specified to apply in Part B (General Terms) of the applicable Issue Specific Conditions, the Securities bear no coupon and pay no periodic amounts.

(b) Coupon Amount

If in Part B (General Terms) of the applicable Issue Specific Conditions **"Coupon Payment"** is specified to apply, the Issuer shall, on each Coupon Payment Date pay the relevant Coupon Amount.

If **"Coupon"** is specified to apply in Part B (General Terms) of the applicable Issue Specific Conditions and a Coupon Amount is required to be calculated for a period ending on (but excluding) a date other than a Coupon Payment Date, such Coupon Amount will be calculated on the basis of the number of days in the Coupon Period, the Coupon applicable to such period and the Coupon Day Count Fraction. If Coupon Payment is specified to apply in Part B (General Terms) of the applicable Issue Specific Conditions, the Coupon Amount(s) shall be the only periodic amount(s) payable for the relevant Series of Securities, and no other interest amounts shall accrue in respect of the relevant Series of Securities.

(2) **Accrual of Coupon**

Coupon Amounts shall cease to be payable from (and including) the Coupon Cessation Date. Other than the payment of the Coupon Amount as aforesaid, no periodic amount is payable under or pursuant to the Conditions.

(3) **Definitions**

"**Coupon**" has the meaning given to it in Part B (General Terms) of the applicable Issue Specific Conditions.

"**Coupon Amount**" means, in respect of the Nominal and/or the Calculation Amount, an amount calculated by the Calculation Agent as specified under "Coupon Amount" in Part B (General Terms) of the applicable Issue Specific Conditions or, if not specified there, calculated as follows:

$$\text{Coupon Amount} = \text{Nominal and/or Calculation Amount} \times \text{Coupon} \times (\text{if specified in Part B (General Terms) of the applicable Issue Specific Conditions}) \text{ Coupon Day Count Fraction}$$

Each Coupon Amount will be rounded to the nearest two decimal places in the Specified Currency, with 0.005 being rounded upwards.

"**Coupon Cessation Date**" has the meaning given to it in Part B (General Terms) of the applicable Issue Specific Conditions.

"**Coupon Commencement Date**" has the meaning given to it in Part B (General Terms) of the applicable Issue Specific Conditions.

"**Coupon Day Count Fraction**" means, in respect of the calculation of a coupon amount on any Security for any period of time (the "**Calculation Period**"):

- (a) if "**Actual/Actual (ICMA)**" is specified in Part B (General Terms) of the applicable Issue Specific Conditions, means:
 - (i) where the Calculation Period is equal to or shorter than the Regular Period during which it falls, the actual number of days in the Calculation Period divided by the product of (A) the actual number of days in such Regular Period and (B) the number of Regular Periods normally ending in any year; and
 - (ii) where the Calculation Period is longer than one Regular Period, the sum of:
 - (A) the actual number of days in such Calculation Period falling in the Regular Period in which it begins divided by the product of (1) the actual number of days in such Regular Period and (2) the number of Regular Periods normally ending in any year; and
 - (B) the actual number of days in such Calculation Period falling in the next Regular Period divided by the product of (1) the actual number of days in such Regular Period and (2) the number of Regular Periods normally ending in any year;
- (b) if "**Actual/Actual (ISDA)**" is specified in Part B (General Terms) of the applicable Issue Specific Conditions, means the actual number of days in the Calculation Period divided by 365 (or, if any portion of the Calculation Period falls in a leap year, the sum of (A) the actual number of days in that portion of the Calculation Period falling in a leap year divided by 366 and (B) the actual number of days in that portion of the Calculation Period falling in a non-leap year divided by 365);
- (c) if "**Actual/365 (Fixed)**" is specified in Part B (General Terms) of the applicable Issue Specific Conditions, means the actual number of days in the Calculation Period divided by 365;
- (d) if "**Actual/360**" is specified in Part B (General Terms) of the applicable Issue Specific Conditions, means the actual number of days in the Calculation Period divided by 360;

- (e) if "**30/360**" "**360/360**" or "**Bond Basis**" is specified in Part B (General Terms) of the applicable Issue Specific Conditions, means the number of days in the Calculation Period divided by 360, calculated on a formula basis as follows:

$$\text{Day Count Fraction} = \frac{[360 \times (Y_2 - Y_1)] + [30 \times (M_2 - M_1) + (D_2 - D_1)]}{360}$$

Where:

"**Y₁**" is the year, expressed as a number, in which the first day of the Calculation Period falls;

"**Y₂**" is the year, expressed as a number, in which the day immediately following the last day of the Calculation Period falls;

"**M₁**" is the calendar month, expressed as a number, in which the first day of the Calculation Period falls;

"**M₂**" is the calendar month, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

"**D₁**" is the first calendar day, expressed as a number, of the Calculation Period, unless such number would be 31, in which case D₁ will be 30; and

"**D₂**" is the calendar day, expressed as a number, immediately following the last day included in the Calculation Period, unless such number would be 31 and D₁ is greater than 29, in which case D₂ will be 30;

- (f) if "**30E/360**" or "**Eurobond Basis**" is specified in Part B (General Terms) of the applicable Issue Specific Conditions, means the number of days in the Calculation Period divided by 360, calculated on a formula basis as follows:

$$\text{Day Count Fraction} = \frac{[360 \times (Y_2 - Y_1)] + [30 \times (M_2 - M_1) + (D_2 - D_1)]}{360}$$

Where:

"**Y₁**" is the year, expressed as a number, in which the first day of the Calculation Period falls;

"**Y₂**" is the year, expressed as a number, in which the day immediately following the last day of the Calculation Period falls;

"**M₁**" is the calendar month, expressed as a number, in which the first day of the Calculation Period falls;

"**M₂**" is the calendar month, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

"**D₁**" is the first calendar day, expressed as a number, of the Calculation Period, unless such number would be 31, in which case D₁ will be 30; and

"**D₂**" is the calendar day, expressed as a number, immediately following the last day included in the Calculation Period, unless such number would be 31, in which case D₂ will be 30; and

- (g) if "**30E/360 (ISDA)**" is specified in Part B (General Terms) of the applicable Issue Specific Conditions, means the number of days in the Calculation Period in respect of which payment is being made divided by 360, calculated on a formula basis as follows:

$$\text{Day Count Fraction} = \frac{[360 \times (Y_2 - Y_1)] + [30 \times (M_2 - M_1) + (D_2 - D_1)]}{360}$$

Where:

"Y₁" is the year, expressed as a number, in which the first day of the Calculation Period falls;

"Y₂" is the year, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

"M₁" is the calendar month, expressed as a number, in which the first day of the Calculation Period falls;

"M₂" is the calendar month, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

"D₁" is the first calendar day, expressed as a number, of the Calculation Period, unless (i) that day is the last day of February or (ii) such number would be 31, in which case D₁ will be 30; and

"D₂" is the calendar day, expressed as a number, immediately following the last day included in the Calculation Period, unless (i) that day is the last day of February but not the Maturity Date or (ii) such number would be 31, in which case D₂ will be 30.

"**Coupon Payment Date**" means each day specified as being a Coupon Payment Date in Part B (General Terms) of the applicable Issue Specific Conditions.

"**Coupon Period**" means, unless otherwise specified within Part B (General Terms) of the applicable Issue Specific Conditions the period commencing on (and including) the Coupon Commencement Date to (but excluding) the first Coupon Payment Date and (where there is more than one Coupon Period) each period commencing on (and including) a Coupon Payment Date to (but excluding) the next following Coupon Payment Date and, if any Coupon Amount is required to be calculated for a period ending other than on (but excluding) a relevant Coupon Payment Date, the period commencing on and including the most recent Coupon Payment Date (or if none the Coupon Commencement Date) to but excluding the relevant payment date.

"**Regular Period**" means, if Actual/Actual (ICMA) is specified in Part B (General Terms) of the applicable Issue Specific Conditions, the period from (and including) the Coupon Commencement Date up to (and excluding) the first Coupon Payment Date or from (and including) each Coupon Payment Date up to (and excluding) the next Coupon Payment Date.

Section 5 – Knock-Out Event and/or Stop-Loss Event

- (1) **Knock-Out Event and/or Stop-Loss Event in the case of Turbo Long Warrants, X-Turbo Long Warrants, Unlimited Turbo Long Warrants, BEST Turbo Certificates Long, Unlimited X-Turbo Long Warrants, BEST X-Turbo Certificates Long, Mini Future Long Warrants, Turbo Certificates Long, X-Mini Future Long Warrants, X-Turbo Certificates Long, Closed-End Mini Future Long Warrants, Closed-End Turbo Certificates Long, Closed-End X-Mini Future Long Warrants and Closed-End X-Turbo Certificates Long**

A "**Knock-Out Event**" (in the case of Turbo Long Warrants, X-Turbo Long Warrants, Unlimited Turbo Long Warrants, BEST Turbo Certificates Long, Unlimited X-Turbo Long Warrants and BEST X-Turbo Certificates Long) and/or a "**Stop-Loss Event**" (in the case of Mini Future Long Warrants, Turbo Certificates Long, X-Mini Future Long Warrants, X-Turbo Certificates Long, Closed-End Mini Future Long Warrants, Closed-End Turbo Certificates Long, Closed-End X-Mini Future Long Warrants and Closed-End X-Turbo Certificates Long) occurs

- (i) - if Part A (Payout Specific Terms) of the applicable Issue Specific Conditions specifies that a Knock-Out Observation Period and/or a Stop-Loss Observation Period is not applicable, if
 - (a) - in the case of Turbo Long Warrants and X-Turbo Long Warrants - the Knock-Out Observation Price reaches or falls below the Knock-Out Barrier (as defined in Section 8 of the General Conditions (*Knock-Out Barrier, Stop-Loss Barrier, Adjustment of Knock Out Barrier, Adjustment of Stop-Loss Barrier*)) on the Valuation Date;
 - (b) - in the case of Unlimited Turbo Long Warrants, BEST Turbo Certificates Long, Unlimited X-Turbo Long Warrants and BEST X-Turbo Certificates Long – the Knock-Out Observation Price reaches or falls below the Current Knock-Out Barrier (as defined in Section 8 of the General Conditions (*Knock-Out Barrier, Stop-Loss Barrier, Adjustment of Knock Out Barrier, Adjustment of Stop-Loss Barrier*)) on the Valuation Date;
 - (c) - in the case of Mini Future Long Warrants, Turbo Certificates Long, X-Mini Future Long Warrants and X-Turbo Certificates Long - the Stop-Loss Observation Price reaches or falls below the Current Stop-Loss Barrier (as defined in Section 8 of the General Conditions (*Knock-Out Barrier, Stop-Loss Barrier, Adjustment of Knock Out Barrier, Adjustment of Stop-Loss Barrier*)) on the Valuation Date; and/or
 - (d) - in the case of Closed-End Mini Future Long Warrants, Closed-End Turbo Certificates Long, Closed-End X-Mini Future Long Warrants and Closed-End X-Turbo Certificates Long - the Stop-Loss Observation Price reaches or falls below the Stop-Loss Barrier (as defined in Section 8 of the General Conditions (*Knock-Out Barrier, Stop-Loss Barrier, Adjustment of Knock Out Barrier, Adjustment of Stop-Loss Barrier*)) on the Valuation Date; or
- (ii) - if Part A (Payout Specific Terms) of the applicable Issue Specific Conditions stipulates a Knock-Out Observation Period and/or Stop-Loss Observation Period - if
 - (a) - in the case of Turbo Long Warrants and X-Turbo Long Warrants - the Knock-Out Observation Price reaches or falls below the Knock-Out Barrier (as defined in Section 8 of the General Conditions (*Knock-Out Barrier, Stop-Loss Barrier, Adjustment of Knock Out Barrier, Adjustment of Stop-Loss Barrier*)) on a Knock-Out Observation Date within the Knock-Out Observation Period during the Knock-Out Observation Hours;
 - (b) - in the case of Unlimited Turbo Long Warrants, BEST Turbo Certificates Long, Unlimited X-Turbo Long Warrants and BEST X-Turbo Certificates Long – the Knock-Out Observation Price reaches or falls below the Current Knock-Out Barrier (as defined in Section 8 of the General Conditions (*Knock-Out Barrier, Stop-Loss Barrier, Adjustment of Knock Out Barrier, Adjustment of Stop-Loss Barrier*)) on a Knock-Out Observation Date within the Knock-Out Observation Period during the Knock-Out Observation Hours;
 - (c) - in the case of Mini Future Long Warrants, Turbo Certificates Long, X-Mini Future Long Warrants and X-Turbo Certificates Long – the Stop-Loss Observation Price reaches or falls below the Current Stop-Loss Barrier (as defined in Section 8 of the General Conditions (*Knock-Out Barrier, Stop-Loss Barrier, Adjustment of Knock Out Barrier, Adjustment of Stop-Loss Barrier*)) on a Stop-Loss Observation Date within the Stop-Loss Observation Period during the Stop-Loss Observation Hours; and/or
 - (d) - in the case of Closed-End Mini Future Long Warrants, Closed-End Turbo Certificates Long, Closed-End X-Mini Future Long Warrants and Closed-End X-Turbo Certificates Long – the Stop-Loss Observation Price reaches or falls below the Stop-Loss Barrier (as defined in Section 8 of the General Conditions

(Knock-Out Barrier, Stop-Loss Barrier, Adjustment of Knock Out Barrier, Adjustment of Stop-Loss Barrier)) on a Stop-Loss Observation Date within the Stop-Loss Observation Period during the Stop-Loss Observation Hours.

(2) **Knock-Out Event and/or Stop-Loss Event in the case of Turbo Short Warrants, X-Turbo Short Warrants, Unlimited Turbo Short Warrants, BEST Turbo Certificates Short, Unlimited X-Turbo Short Warrants, BEST X-Turbo Certificates Short, Mini Future Short Warrants, Turbo Certificates Short, X-Mini Future Short Warrants, X-Turbo Certificates Short, Closed-End Mini Future Short Warrants, Closed-End Turbo Certificates Short, Closed-End X-Mini Future Short Warrants and Closed-End X-Turbo Certificates Short**

A "**Knock-Out Event**" (in the case of Turbo Short Warrants, X-Turbo Short Warrants, Unlimited Turbo Short Warrants, BEST Turbo Certificates Short, Unlimited X-Turbo Short Warrants and BEST X-Turbo Certificates Short) and/or a "**Stop-Loss Event**" (in the case of Mini Future Short Warrants, Turbo Certificates Short, X-Mini Future Short Warrants, X-Turbo Certificates Short, Closed-End Mini Future Short Warrants, Closed-End Turbo Certificates Short, Closed-End X-Mini Future Short Warrants and Closed-End X-Turbo Certificates Short) occurs

- (i) - if Part A (Payout Specific Terms) of the applicable Issue Specific Conditions specifies that a Knock-Out Observation Period and/or a Stop-Loss Observation Period is not applicable, if
 - (a) - in the case of Turbo Short Warrants and X-Turbo Short Warrants - the Knock-Out Observation Price reaches or exceeds the Knock-Out Barrier (as defined in Section 8 of the General Conditions *(Knock-Out Barrier, Stop-Loss Barrier, Adjustment of Knock Out Barrier, Adjustment of Stop-Loss Barrier))* on the Valuation Date;
 - (b) - in the case of Unlimited Turbo Short Warrants, BEST Turbo Certificates Short, Unlimited X-Turbo Short Warrants and BEST X-Turbo Certificates Short – the Knock-Out Observation Price reaches or exceeds the Current Knock-Out Barrier (as defined in Section 8 of the General Conditions *(Knock-Out Barrier, Stop-Loss Barrier, Adjustment of Knock Out Barrier, Adjustment of Stop-Loss Barrier))* on the Valuation Date;
 - (c) - in the case of Mini Future Short Warrants, Turbo Certificates Short, X-Mini Future Short Warrants and X-Turbo Certificates Short - the Stop-Loss Observation Price reaches or exceeds the Current Stop-Loss Barrier (as defined in Section 8 of the General Conditions *(Knock-Out Barrier, Stop-Loss Barrier, Adjustment of Knock Out Barrier, Adjustment of Stop-Loss Barrier))* on the Valuation Date; and/or
 - (d) - in the case of Closed-End Mini Future Short Warrants, Closed-End Turbo Certificates Short, Closed-End X-Mini Future Short Warrants and Closed-End X-Turbo Certificates Short - the Stop-Loss Observation Price reaches or exceeds the Stop-Loss Barrier (as defined in Section 8 of the General Conditions *(Knock-Out Barrier, Stop-Loss Barrier, Adjustment of Knock Out Barrier, Adjustment of Stop-Loss Barrier))* on the Valuation Date; or
- (ii) - if Part A (Payout Specific Terms) of the applicable Issue Specific Conditions stipulates a Knock-Out Observation Period and/or Stop-Loss Observation Period - if
 - (a) - in the case of Turbo Short Warrants and X-Turbo Short Warrants - the Knock-Out Observation Price reaches or exceeds the Knock-Out Barrier (as defined in Section 8 of the General Conditions *(Knock-Out Barrier, Stop-Loss Barrier, Adjustment of Knock Out Barrier, Adjustment of Stop-Loss Barrier))* on a Knock-Out Observation Date within the Knock-Out Observation Period during the Knock-Out Observation Hours;

- (b) - in the case of Unlimited Turbo Short Warrants, BEST Turbo Certificates Short, Unlimited X-Turbo Short Warrants and BEST X-Turbo Certificates Short – the Knock-Out Observation Price reaches or exceeds the Current Knock-Out Barrier (as defined in Section 8 of the General Conditions (*Knock-Out Barrier, Stop-Loss Barrier, Adjustment of Knock Out Barrier, Adjustment of Stop-Loss Barrier*)) on a Knock-Out Observation Date within the Knock-Out Observation Period during the Knock-Out Observation Hours;
- (c) - in the case of Mini Future Short Warrants, Turbo Certificates Short, X-Mini Future Short Warrants and X-Turbo Certificates Short – the Stop-Loss Observation Price reaches or exceeds the Current Stop-Loss Barrier (as defined in Section 8 of the General Conditions (*Knock-Out Barrier, Stop-Loss Barrier, Adjustment of Knock Out Barrier, Adjustment of Stop-Loss Barrier*)) on a Stop-Loss Observation Date within the Stop-Loss Observation Period during the Stop-Loss Observation Hours; and/or
- (d) - in the case of Closed-End Mini Future Short Warrants, Closed-End Turbo Certificates Short, Closed-End X-Mini Future Short Warrants and Closed-End X-Turbo Certificates Short – the Stop-Loss Observation Price reaches or exceeds the Stop-Loss Barrier (as defined in Section 8 of the General Conditions (*Knock-Out Barrier, Stop-Loss Barrier, Adjustment of Knock Out Barrier, Adjustment of Stop-Loss Barrier*)) on a Stop-Loss Observation Date within the Stop-Loss Observation Period during the Stop-Loss Observation Hours.

(3) **Consequences of a Knock-Out Event and/or a Stop-Loss Event**

On the occurrence of a Knock-Out Event and/or a Stop-Loss Event the term of the Securities ends automatically and the Security Right expires automatically without the need for a separate termination of the Securities by the Issuer. The occurrence of a Knock-Out Event and/or a Stop-Loss Event is announced in accordance with Section 16 of the General Conditions (*Notices*). In the case of a Knock-Out Event and/or a Stop-Loss Event, the Holder will receive the Knock-Out Settlement Amount (in the case of Turbo Warrants, X-Turbo Warrants, Unlimited Turbo Warrants, BEST Turbo Certificates, Unlimited X-Turbo Warrants and BEST X-Turbo Certificates) and/or the Stop-Loss Settlement Amount (in the case of Mini Future Warrants, Turbo Certificates, X-Mini Future Warrants, X-Turbo Certificates, Closed-End Mini Future Warrants, Closed-End Turbo Certificates, Closed-End X-Mini Future Warrants and Closed-End X-Turbo Certificates) in respect of each Security on the Maturity Date. The occurrence of a Knock-Out Event and/or a Stop-Loss Event will override a termination by the Issuer or an exercise by the Holder pursuant to Section 2 of the General Conditions (*Exercise*) if the Knock-Out Event and/or the Stop-Loss Event occurs prior to or on the Termination Date or Valuation Date as the case may be.

(4) **Definitions**

"Knock-Out Observation Date" has the meaning given to it in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"Knock-Out Observation Hours" has the meaning given to it in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"Knock-Out Observation Period" has the meaning given to it in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"Knock-Out Observation Price" means the price specified in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"Knock-Out Settlement Amount" means the Knock-Out Settlement Amount set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"Stop-Loss Observation Date" has the meaning given to it in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"Stop-Loss Observation Hours" has the meaning given to it in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"Stop-Loss Observation Period" has the meaning given to it in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"Stop-Loss Observation Price" means the price specified in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"Stop-Loss Reference Price" means:

- (a) - in the case of Mini Future Long Warrants, Turbo Certificates Long, X-Mini Future Long Warrants, X-Turbo Certificates Long, Closed-End Mini Future Long Warrants, Closed-End Turbo Certificates Long, Closed-End X-Mini Future Long Warrants and Closed-End X-Turbo Certificates Long - the lowest; or
- (b) - in the case of Mini Future Short Warrants, Turbo Certificates Short, X-Mini Future Short Warrants, X-Turbo Certificates Short, Closed-End Mini Future Short Warrants, Closed-End Turbo Certificates Short, Closed-End X-Mini Future Short Warrants and Closed-End X-Turbo Certificates Short - the highest

price of the Reference Asset as determined by the Calculation Agent, unless otherwise defined in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions, within three (3) Calculation Hours following the occurrence of the Stop-Loss Event (the **"Stop-Loss Settlement Period"**). The Calculation Agent may, in its reasonable discretion, also determine a more advantageous price for the Holders as the Stop-Loss Reference Price. If the Stop-Loss Event occurs within a shorter period than three (3) hours (or such other time period specified in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions) prior to the end of the Calculation Hours on a Stop-Loss Observation Date, the period for determining the Stop-Loss Reference Price for the Reference Asset is extended until the expiration of a total of three (3) Calculation Hours (or such other time period specified in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions) to the immediately following Stop-Loss Observation Date.

"Stop-Loss Settlement Amount" means the amount equal to the product of:

- (i) the Ratio; and
- (ii)
 - (A) - in the case of Mini Future Long Warrants, Turbo Certificates Long, X-Mini Future Long Warrants and X-Turbo Certificates Long - the Stop-Loss Reference Price minus the Current Strike on the day on which the Stop-Loss Event occurs;
 - (B) - in the case of Mini Future Short Warrants, Turbo Certificates Short, X-Mini Future Short Warrants and/or X-Turbo Certificates Short - the Current Strike on the day on which the Stop-Loss Event occurs minus the Stop-Loss Reference Price;
 - (C) - in the case of Closed-End Mini Future Long Warrants, Closed-End Turbo Certificates Long, Closed-End X-Mini Future Long Warrants and Closed-End X-Turbo Certificates Long - the Stop-Loss Reference Price minus the Strike; or
 - (D) - in the case of Closed-End Mini Future Short Warrants, Closed-End Turbo Certificates Short, Closed-End X-Mini Future Short Warrants and/or Closed-End X-Turbo Certificates Short - the Strike minus the Stop-Loss Reference Price,

provided, however, that such amount is at least zero (0) or, if provided for in the applicable Final Terms, at least equal to the Stop-Loss Settlement Base Amount.

The Stop-Loss Settlement Amount will be (x) converted into the Specified Currency based on a foreign exchange rate expressed in the Reference Currency for one unit of the Specified

Currency, as determined by the Calculation Agent in its reasonable discretion based on the market situation existing on the foreign currency market at the time of the conversion and (y) commercially rounded to the Stop-Loss Settlement Amount Rounding.

"Stop-Loss Settlement Base Amount" means the Stop-Loss Settlement Base Amount set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"Stop-Loss Settlement Amount Rounding" has the meaning given to it in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

Section 6 – Strike, Adjustment of Strike

(1) **Strike**

The **"Strike"** on the Initial Valuation Date is set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions. Unless otherwise specified in the following paragraphs the Strike will not be adjusted during the term of the Securities (subject to an adjustment of the Strike pursuant to the relevant Reference Asset Linked Conditions).

(2) **Strike Adjustment in the case of Unlimited Turbo Warrants, BEST Turbo Certificates, Unlimited X-Turbo Warrants, BEST X-Turbo Certificates, Mini Future Warrants, Turbo Certificates, X-Mini Future Warrants and/or X-Turbo Certificates**

In the case of Unlimited Turbo Warrants, BEST Turbo Certificates, Unlimited X-Turbo Warrants, BEST X-Turbo Certificates, Mini Future Warrants, Turbo Certificates, X-Mini Future Warrants and/or X-Turbo Certificates the Strike will be adjusted on a regular basis during their term pursuant to the following provisions:

- (a) In the case of **Reference Assets comprising Shares and price return Indices**, the Strike is adjusted on the First Strike Adjustment Date and on each following Adjustment Date with effect as of the Adjustment Time by deducting the sum of the Dividend Effects on the Dividend Ex Dates from (and excluding) the immediately preceding Adjustment Date (or in the case of the First Strike Adjustment Date, the first Knock-Out Observation Date and/or the first Stop-Loss Observation Date) up to (and including) such Adjustment Date (or the First Strike Adjustment Date, as applicable) from the product of:
 - (i) the Current Strike on the Adjustment Date in effect immediately prior to the Adjustment Time and
 - (ii) the Financing Factor.
- (b) In the case of **Reference Assets comprising total return Indices (in the case of Unlimited Turbo Long Warrants, BEST Turbo Certificates Long, Unlimited X-Turbo Long Warrants, BEST X-Turbo Certificates Long, Mini Future Long Warrants and/or Turbo Certificates Long, X-Mini Future Long Warrants and/or X-Turbo Certificates Long)**, the Strike is adjusted on the First Strike Adjustment Date and on each following Adjustment Date with effect as of the Adjustment Time by adding the sum of the Dividend Effects on the Dividend Ex Dates from (and excluding) the immediately preceding Adjustment Date (or in the case of the First Strike Adjustment Date, the first Knock-Out Observation Date and/or the first Stop-Loss Observation Date) up to (and including) such Adjustment Date (or the First Strike Adjustment Date, as applicable) to the product of:
 - (i) the Current Strike on the Adjustment Date in effect immediately prior to the Adjustment Time and
 - (ii) the Financing Factor.

- (c) In the case of **Reference Assets comprising total return Indices (in the case of Unlimited Turbo Short Warrants, BEST Turbo Certificates Short, Unlimited X-Turbo Short Warrants, BEST X-Turbo Certificates Short, Mini Future Short Warrants, Turbo Certificates Short, X-Mini Future Short Warrants and/or X-Turbo Certificates Short), Futures Contracts, Foreign Exchange Rates and Commodities** and subject to the following sentence the Strike is adjusted on the First Strike Adjustment Date and on each following Adjustment Date with effect as of the Adjustment Time by the product of:

- (i) the Current Strike on the Adjustment Date in effect immediately prior to the Adjustment Time and
- (ii) the Financing Factor.

If the Unlimited Turbo Warrants or Mini Future Warrants are linked to Futures Contracts as Reference Asset and the Current Strike is negative, the Strike is adjusted - in the case of Unlimited Turbo Long Warrants or Mini Future Long Warrants - by adding the Current Strike to the product of the absolute value of the Current Strike and the Financing Factor or - in the case of Unlimited Turbo Short Warrants or Mini Future Short Warrants - by deducting the product of the absolute value of the Current Strike and the Financing Factor from the Current Strike.

The result of the calculation set out in the foregoing paragraphs will be rounded to the Strike Rounding Amount (being always rounded up (in the case of Unlimited Turbo Long Warrants, BEST Turbo Certificates Long, Unlimited X-Turbo Long Warrants, BEST X-Turbo Certificates Long, Mini Future Long Warrants, Turbo Certificates Long, X-Mini Future Long Warrants and/or X-Turbo Certificates Long) or rounded down (in the case of Unlimited Turbo Short Warrants, BEST Turbo Certificates Short, Unlimited X-Turbo Short Warrants, BEST X-Turbo Certificates Short, Mini Future Short Warrants, Turbo Certificates Short, X-Mini Future Short Warrants and/or X-Turbo Certificates Short) and will, for the purposes of the Conditions, constitute the new Strike (the "**Current Strike**"). If the First Strike Adjustment Date and/or the respective Adjustment Date falls on a Rollover Date, the Reference Asset Price shall be determined on the basis of the Futures Contract after the Rollover.

Each reference in the Conditions to the Strike in effect at a relevant time shall mean the Strike as adjusted from (and including) the First Strike Adjustment Date up to (and including) the stated point in time pursuant to the aforementioned rule.

(3) **Strike Adjustment in the case of Factor Warrants that are not linked to a Factor Index as Reference Asset**

In the case of Factor Warrants the Strike will be adjusted as follows:

- (a) Strike Adjustment after the determination of the Reference Asset Price on the First Strike Adjustment Date and on each following Adjustment Date

In the case of Factor Warrants Long

The Strike will be adjusted on the First Strike Adjustment Date and on each following Adjustment Date after the determination of the Reference Asset Price by multiplying

- (i) the Reference Asset Price on the First Strike Adjustment Date and/or the relevant Adjustment Date by
- (ii) the quotient of
 - (1) the difference between the Leverage Factor and 1 and
 - (2) the Leverage Factor.

In the case of Factor Warrants Short

The Strike will be adjusted on the First Strike Adjustment Date and on each following Adjustment Date after the determination of the Reference Asset Price by multiplying

- (i) the Reference Asset Price on the First Strike Adjustment Date and/or the relevant Adjustment Date by
- (ii) the quotient of
 - (1) the sum of the Leverage Factor and 1 and
 - (2) the Leverage Factor.

The result of the calculation set out in the foregoing paragraphs will be rounded to the Strike Rounding Amount (being always rounded up (in the case of Factor Warrants Long) or rounded down (in the case of Factor Warrants Short)) and will, for the purposes of the Conditions, constitute the new Strike (the "**Current Strike**"). If the First Strike Adjustment Date and/or the respective Adjustment Date falls on a Rollover Date, the Reference Asset Price shall be determined on the basis of the Futures Contract after the Rollover.

(b) Strike Adjustment on the first Adjustment Date following the First Strike Adjustment Date and on each following Adjustment Date

The Strike will be adjusted on the first Adjustment Date following the First Strike Adjustment Date and on each following Adjustment Date with effect as of the Adjustment Time of the Factor Warrants as follows:

- (i) in the case of Reference Assets comprising Shares and price return Indices, , by deducting the sum of the Dividend Effects on the Dividend Ex Dates from (and excluding) the immediately preceding Adjustment Date (or in the case of the first Adjustment Date following the First Strike Adjustment Date, the First Strike Adjustment Date) up to (and including) such Adjustment Date from the product of the Current Strike on the relevant Adjustment Date (as determined pursuant to Section 6 (3)(a) of the General Conditions) and the Adjustment Rate;
- (ii) in the case of Reference Assets comprising total return Indices, by adding the sum of the Dividend Effects on the Dividend Ex Dates from (and excluding) the immediately preceding Adjustment Date (or in the case of the first Adjustment Date following the First Strike Adjustment Date, the First Strike Adjustment Date) up to (and including) such Adjustment Date from the product of the Current Strike on the relevant Adjustment Date (as determined pursuant to Section 6 (3)(a) of the General Conditions) and the Adjustment Rate; and
- (iii) in the case of Reference Assets comprising Futures Contracts, Commodities or Foreign Exchange Rates by multiplying the Current Strike on the relevant Adjustment Date (as determined pursuant to Section 6 (3)(a) of the General Conditions) and the Adjustment Rate.

The result of the calculation set out in the foregoing paragraphs will be rounded to the Strike Rounding Amount (being always rounded up (in the case of Factor Warrants Long) or rounded down (in the case of Factor Warrants Short)) and will, for the purposes of the Conditions, constitute the new Strike (the "**Current Strike**").

(c) Strike Adjustment in the case of the occurrence of an Adjustment Event

In the case of Factor Warrants Long

The Strike will be adjusted after the occurrence of an Adjustment Event by multiplying

(i) the Value of the Reference Asset by

(ii) the quotient of

(1) the difference between the Leverage Factor and 1 and

(2) the Leverage Factor.

In the case of Factor Warrants Short

The Strike will be adjusted after the occurrence of an Adjustment Event by multiplying

(i) the Value of the Reference Asset by

(ii) the quotient of

(1) the sum of the Leverage Factor and 1 and

(2) the Leverage Factor.

The result of the calculation set out in the foregoing paragraphs will be rounded to the Strike Rounding Amount (being always rounded up (in the case of Factor Warrants Long) or rounded down (in the case of Factor Warrants Short)) and will, for the purposes of the Conditions, constitute the new Strike (the "**Current Strike**").

(4) **Definitions**

"**Adjusted Reference Rate**" on any given day (in the case of Unlimited Turbo Short Warrants, BEST Turbo Certificates Short, Unlimited X-Turbo Short Warrants, BEST X-Turbo Certificates Short, Mini Future Short Warrants, Turbo Certificates Short, X-Mini Future Short Warrants, X-Turbo Certificates Short and Factor Warrants Short) means

Reference Rate - $\text{Max}(0; \text{Min}(\text{FRAP}; \text{Reference Rate}))$.

"**Adjustment Barrier**" on the Initial Valuation Date is set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions. In the case of Factor Warrants the Adjustment Barrier will be adjusted following each time the Current Strike is adjusted by multiplying the Current Strike (as adjusted pursuant to Section 6 (3) of the General Conditions) by the Adjustment Factor.

The result of the calculation set out in the foregoing paragraph will be rounded to the Adjustment Barrier Rounding Amount (being always rounded up (in the case of Factor Warrants Long) or rounded down (in the case of Factor Warrants Short)) and will, for the purposes of the Conditions, constitute the new Adjustment Barrier (the "**Current Adjustment Barrier**").

"**Adjustment Barrier Rounding Amount**" is the Adjustment Barrier Rounding Amount as set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"**Adjustment Buffer**" means the Adjustment Buffer on the Adjustment Buffer Adjustment Date. The "**Initial Adjustment Buffer**" on the Initial Valuation Date corresponds to the Initial Adjustment Buffer as set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions. The Issuer has the right to adjust the Adjustment Buffer with effect as of an Adjustment Buffer Adjustment Date up to the "**Maximum Adjustment Buffer**" as set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions, if, *inter alia*, the volatility of the Reference Asset to which the Factor Warrants are linked changes materially. Each reference contained in the Conditions to the Adjustment Buffer shall be construed as a reference to the Adjustment Buffer as adjusted in accordance with the preceding sentence of this definition from (and including) the date on which the relevant

adjustment as aforesaid becomes effective. The adjustment of the Adjustment Buffer and the date on which the adjustment becomes effective will be announced in accordance with Section 16 of the General Conditions (*Notices*).

"**Adjustment Buffer Adjustment Date**" is set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"**Adjustment Date**" is set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"**Adjustment Event**" occurs, if on an Observation Date within the Observation Period during the Observation Hours, the Observation Price reaches or falls below (in the case of Factor Warrants Long) or reaches or exceeds (in the case of Factor Warrants Short) the respective Current Adjustment Barrier.

"**Adjustment Factor**" is determined as follows:

(i) in the case of Factor Warrants Long:

$$1 + \text{Adjustment Buffer}$$

(ii) in the case of Factor Warrants Short:

$$1 - \text{Adjustment Buffer}$$

"**Adjustment Rate**" is the result of the following calculation:

(a) *in the case of Factor Warrants Long*

$$\text{Financing Factor} + \frac{T}{360} \times \left(\frac{L}{L-1} \times f_t \right)$$

(b) *in the case of Factor Warrants Short*

$$\text{Financing Factor} - \frac{T}{360} \times \left(\frac{L}{L+1} \times f_t \right)$$

whereby:

"T" equals the number of calendar days from the last Adjustment Date (exclusive) until the current Adjustment Date (inclusive) and/or, in the case of the adjustment of the Strike on the First Strike Adjustment Date, the number of calendar days from the start of public offer (exclusive) until the First Strike Adjustment Date (inclusive);

"L" is the Leverage Factor; and

"f_t" is the Factor Rate.

"**Adjustment Time**" is set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"**Dividend Effect**" means

(a) in the case of **Reference Assets comprising Shares, price return Indices and total return Indices (in the case of Unlimited Turbo Long Warrants, BEST Turbo Certificates Long, Unlimited X-Turbo Long Warrants, BEST X-Turbo Certificates Long, Mini Future Long Warrants, Turbo Certificates Long, X-Mini Future Long Warrants, X-Turbo Certificates Long and/or Factor Warrants Long)**, an amount, calculated by the Calculation Agent in its reasonable discretion based on the cash dividends or cash distributions equivalent to dividends which are to be distributed in respect of a Dividend Ex Date on the relevant share or on one or

several shares comprised in the index and without regard to any applicable taxes, charges or other deductions; or

- (b) in the case of **Reference Assets other than Shares, price return Indices and total return Indices (in the case of Unlimited Turbo Long Warrants, BEST Turbo Certificates Long, Unlimited X-Turbo Long Warrants, BEST X-Turbo Certificates Long, Mini Future Long Warrants, Turbo Certificates Long, X-Mini Future Long Warrants, X-Turbo Certificates Long and/or Factor Warrants Long)**, zero (0),

whereby, in the case of Unlimited Turbo Warrants, BEST Turbo Certificates, Unlimited X-Turbo Warrants, BEST X-Turbo Certificates, Mini Future Warrants, Turbo Certificates, X-Mini Future Warrants, X-Turbo Certificates and Factor Warrants, the respective amount is also multiplied by the Dividend Factor.

"Dividend Factor" on any given day is,

- (a) in the case of **Reference Assets comprising Shares or price return Indices (in the case of Unlimited Turbo Long Warrants, BEST Turbo Certificates Long, Unlimited X-Turbo Long Warrants, BEST X-Turbo Certificates Long, Mini Future Long Warrants, Turbo Certificates Long, X-Mini Future Long Warrants, X-Turbo Certificates Long and Factor Warrants Long)**, a value between 0 and 1, determined by the Calculation Agent in its reasonable discretion to be a value that considers (i) any withholding taxes calculated using a withholding rate imposed by the jurisdiction of incorporation of the relevant share or one or several of the shares comprised in the index on foreign institutional investors who do not benefit from any double taxation treaties and (ii) any charges and expenses payable, on the cash dividends or cash distributions equivalent to dividends distributed on that day on the relevant share or one or several of the shares comprised in the index;
- (b) in the case of **Reference Assets comprising total return Indices (in the case of Unlimited Turbo Long Warrants, BEST Turbo Certificates Long, Unlimited X-Turbo Long Warrants, BEST X-Turbo Certificates Long, Mini Future Long Warrants, Turbo Certificates Long, X-Mini Future Long Warrants X-Turbo Certificates Long and Factor Warrants Long)**, the difference between (A) 1 and (B) a value between 0 and 1, determined by the Calculation Agent in its reasonable discretion to be a value that considers (i) the cash dividends or cash distributions equivalent to dividends which are to be distributed on the relevant day on the relevant share or on one or several shares comprised in the index, (ii) any withholding taxes calculated using a withholding rate imposed by the jurisdiction of incorporation of the relevant share or one or several of the shares comprised in the index on foreign institutional investors who do not benefit from any double taxation treaties and (iii) any charges and expenses payable, on the cash dividends or cash distributions equivalent to dividends distributed on that day on the relevant share or one or several of the shares comprised in the index; or
- (c) in the case of **Reference Assets comprising Shares or price return Indices (in the case of Unlimited Turbo Short Warrants, BEST Turbo Certificates Short, Unlimited X-Turbo Short Warrants, BEST X-Turbo Certificates Short, Mini Future Short Warrants, Turbo Certificates Short, X-Mini Future Short Warrants, X-Turbo Certificates Short and Factor Warrants Short)**, one (1).

"Dividend Ex Date" is a day on which shares of the relevant company for which dividends or cash amounts equivalent to dividends are to be distributed are traded "ex dividend" on their relevant primary exchange.

"Factor Rate" means the **"Initial Factor Rate"** specified in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions. The Calculation Agent has the right to adjust the Factor Rate with effect as of any Adjustment Date in its reasonable discretion up to the **"Maximum Factor Rate"** set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions, taking into account prevailing market conditions (such as liquidity of

global financial markets, availability and cost of capital and credit, interest rates, borrowing costs, repurchase costs, any imposition or announcement of any legislation or regulation which require higher capital ratio requirements for banks). The adjustment of the Factor Rate as aforesaid and the date on which the adjustment becomes effective will be announced in accordance with Section 16 of the General Conditions (*Notices*). Each reference contained in the Conditions to the Factor Rate is deemed a reference to the Factor Rate as adjusted in accordance with the foregoing provisions of this paragraph from (and including) the date on which the adjustment becomes effective.

"Financing Factor" means

$$1 + \frac{\text{Financing Rate} \times T}{360}$$

Where

"Financing Rate" means the Financing Rate in effect on the current Adjustment Date;

"T" equals the number of calendar days from the last Adjustment Date (exclusive) until the current Adjustment Date (inclusive) and/or, in the case of the adjustment of the Strike on the First Strike Adjustment Date, the number of calendar days from the start of public offer (exclusive) until the First Strike Adjustment Date (inclusive).

"Financing Rate" on any given day corresponds to (in the case of Unlimited Turbo Long Warrants, BEST Turbo Certificates Long, Unlimited X-Turbo Long Warrants, BEST X-Turbo Certificates Long, Mini Future Long Warrants, Turbo Certificates Long, X-Mini Future Long Warrants, X-Turbo Certificates Long and Factor Warrants Long), the greater of (i) zero (0) and (ii) the Reference Rate on that given day (i.e. the latest price of the Reference Rate that is available on the relevant screen page for the Reference Rate at the time of the adjustment of the Strike), plus the Financing Spread; or (in the case of Unlimited Turbo Short Warrants, BEST Turbo Certificates Short, Unlimited X-Turbo Short Warrants, BEST X-Turbo Certificates Short, Mini Future Short Warrants, Turbo Certificates Short, X-Mini Future Short Warrants, X-Turbo Certificates Short and Factor Warrants Short) the Adjusted Reference Rate on that given day, minus the Financing Spread.

"Financing Rate Adjustment Percentage" means the percentage specified in the applicable Final Terms. If no Financing Rate Adjustment Percentage is specified in the applicable Final Terms the Financing Rate Adjustment Percentage is zero.

"Financing Spread" means the **"Initial Financing Spread"** specified in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions. The Calculation Agent has the right to adjust the Financing Spread with effect as of any Adjustment Date in its reasonable discretion up to the **"Maximum Financing Spread"** set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions, taking into account prevailing market conditions (such as liquidity of global financial markets, availability and cost of capital and credit, interest rates, borrowing costs, repurchase costs, any imposition or announcement of any legislation or regulation which require higher capital ratio requirements for banks). The adjustment of the Financing Spread as aforesaid and the date on which the adjustment becomes effective will be announced in accordance with Section 16 of the General Conditions (*Notices*). Each reference contained in the Conditions to the Financing Spread is deemed a reference to the Financing Spread as adjusted in accordance with the foregoing provisions of this paragraph from (and including) the date on which the adjustment becomes effective.

"First Observation Date" has the meaning given to it in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"First Strike Adjustment Date" is set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"FRAP" means the Financing Rate Adjustment Percentage.

"Leverage Factor" is set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"Observation Date" has the meaning given to it in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"Observation Hours" has the meaning given to it in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"Observation Period" has the meaning given to it in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"Observation Price" means the price specified in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"Reference Rate" means, in respect of any day,

(a) in the case of a **Reference Asset other than Foreign Exchange Rates**, the Reference Rate set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions, the rate as it is shown on the respective day on the Reference Rate Screen Page. If the Reference Rate Screen Page is not available at the relevant time or if the Reference Rate is not shown, the Reference Rate shall mean the rate shown on the corresponding screen page of another financial information service. If the aforementioned Reference Rate should no longer be shown as aforesaid, the Reference Rate is cancelled, the responsible entity is not able to calculate the Reference Rate or the Reference Rate may no longer be used due to legal requirements, the Calculation Agent has the right to determine in its reasonable discretion the Reference Rate based on the then applicable market conditions. Furthermore, the Calculation Agent has the right to replace the relevant Reference Rate by another rate with effect as of any Adjustment Date in its reasonable discretion, taking into account prevailing market conditions (such as liquidity of global financial markets, availability and cost of capital and credit, interest rates, borrowing costs, repurchase costs, any imposition or announcement of any legislation or regulation which require higher capital ratio requirements for banks). The adjustment of the Reference Rate as aforesaid and the date on which the adjustment becomes effective will be announced in accordance with Section 16 of the General Conditions (*Notices*).

(b) in the case of **Foreign Exchange Rates as Reference Asset**, the rate equal to the difference between (i) the Reference Rate for the Reference Currency set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions, as it is shown on the respective day on the Reference Rate Screen Page for the Reference Currency and (ii) the Reference Rate for the Base Currency set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions, as it is shown on the respective day on the Reference Rate Screen Page for the Base Currency. If any of the screen pages is not available at the relevant time or if the relevant rate is not shown, the relevant Reference Rate for the Reference Currency and/or the relevant Reference Rate for the Base Currency shall mean the rate shown on the corresponding screen page of another financial information service. If the aforementioned Reference Rates should no longer be shown as aforesaid, the respective Reference Rate is cancelled, the responsible entity is not able to calculate the respective Reference Rate or the respective Reference Rate may no longer be used due to legal requirements, the Calculation Agent has the right to determine in its reasonable discretion the respective Reference Rate based on the then applicable market conditions. Furthermore, the Calculation Agent has the right to replace the relevant reference rate by another rate with effect as of any Adjustment Date in its reasonable discretion, taking into account prevailing market conditions (such as liquidity of global financial markets, availability and cost of capital and credit, interest rates, borrowing costs, repurchase costs, any imposition or announcement of any legislation or regulation which require higher capital ratio requirements for banks). The adjustment of the Reference Rate for the Reference Currency or the Reference Rate for the Base Currency as aforesaid and the date on which the adjustment becomes effective will be announced in accordance with Section 16 of the General Conditions (*Notices*).

"Reference Rate for the Base Currency" is the Reference Rate for the Base Currency as set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"Reference Rate for the Reference Currency" is the Reference Rate for the Reference Currency as set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"Reference Rate Screen Page" is the Reference Rate Screen Page as set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"Reference Rate Screen Page for the Base Currency" is the Reference Rate Screen Page for the Base Currency as set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"Reference Rate Screen Page for the Reference Currency" is the Reference Rate Screen Page for the Reference Currency as set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"Strike Rounding Amount" is the Strike Rounding Amount as set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"Value of the Reference Asset" is, unless otherwise specified in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions, the lowest (in the case of Factor Warrants Long) or highest (in the case of Factor Warrants Short) price of the Reference Asset as determined by the Calculation Agent in its reasonable discretion within a period of ten minutes following the occurrence of the Adjustment Event; if the Adjustment Event occurs less than ten minutes before the determination of the Reference Asset Price the relevant Reference Asset Price shall be the Value of the Reference Asset. In the case of Futures Contracts as Reference Asset and if an Adjustment Event occurs on an Observation Date which is a Rollover Date, the Value of the Reference Asset shall be determined on the basis of the Futures Contract prior to the Rollover if the Adjustment Event occurs prior to the Rollover. If the Adjustment Event occurs after the Rollover, the Value of the Reference Asset shall be determined on the basis of the Futures Contract after the Rollover.

Section 7 – Ratio, Adjustment of Ratio

(1) Ratio

The **"Ratio"** on the Initial Valuation Date is set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions. Unless otherwise specified in the following paragraphs the Ratio will not be adjusted during the term of the Securities (subject to an adjustment of the Ratio pursuant to the relevant Reference Asset Linked Conditions).

(2) Ratio Adjustment in the case of Factor Warrants that are not linked to a Factor Index as Reference Asset

(a) Ratio Adjustment after the determination of the Reference Asset Price on the First Strike Adjustment Date and on each following Adjustment Date

In the case of Factor Warrants Long

The Ratio will be adjusted on the First Strike Adjustment Date and on each following Adjustment Date after the determination of the Reference Asset Price by multiplying the Leverage Factor by

- (i) the Current Ratio on the First Strike Adjustment Date and/or the relevant Adjustment Date (prior to the adjustment) and
- (ii) the quotient of

- (1) the difference between the Reference Asset Price on the First Strike Adjustment Date and/or the relevant Adjustment Date and the Current Strike on the First Strike Adjustment Date and/or the relevant Adjustment Date (prior to the adjustment) and
- (2) the Reference Asset Price on the First Strike Adjustment Date and/or the relevant Adjustment Date and
- (iii) if the Factor Warrants Long are linked to a Futures Contract as Reference Asset and the First Strike Adjustment Date and/or the respective Adjustment Date falls on a Rollover Date, the Rollover Ratio Adjustment Factor (as defined in the Futures Contract Linked Provisions) shall be added to the result of the above calculation.

If the Factor Warrants Long are linked to a Futures Contract as Reference Asset and the First Strike Adjustment Date and/or the respective Adjustment Date falls on a Rollover Date, the Reference Asset Price shall be determined on the basis of the Futures Contract after the Rollover.

In the case of Factor Warrants Short

The Ratio will be adjusted on the First Strike Adjustment Date and on each following Adjustment Date after the determination of the Reference Asset Price by multiplying the Leverage Factor by

- (i) the Current Ratio on the First Strike Adjustment Date and/or the relevant Adjustment Date (prior to the adjustment) and
- (ii) the quotient of
 - (1) the difference between the Current Strike on the First Strike Adjustment Date and/or the relevant Adjustment Date (prior to the adjustment) and the Reference Asset Price on the First Strike Adjustment Date and/or the relevant Adjustment Date and
 - (2) the Reference Asset Price on the First Strike Adjustment Date and/or the relevant Adjustment Date and
- (iii) if the Factor Warrants Short are linked to a Futures Contract as Reference Asset and the First Strike Adjustment Date and/or the respective Adjustment Date falls on a Rollover Date, the Rollover Ratio Adjustment Factor (as defined in the Futures Contract Linked Provisions) shall be deducted from the result of the above calculation.

If the Factor Warrants Short linked to a Futures Contract as Reference Asset and the First Strike Adjustment Date and/or the respective Adjustment Date falls on a Rollover Date, the Reference Asset Price shall be determined on the basis of the Futures Contract after the Rollover.

Subject to subparagraph (c) below, the result of the calculation set out in the foregoing paragraphs will be commercially rounded to the Ratio Rounding Amount and will, for the purposes of the Conditions, constitute the new Ratio (the "**Current Ratio**").

- (b) Ratio Adjustment after the occurrence of an Adjustment Event on the First Strike Adjustment Date and on each following Adjustment Date

In the case of Factor Warrants Long

The Ratio will be adjusted on the First Strike Adjustment Date and on each following Adjustment Date after the occurrence of an Adjustment Event by multiplying the Leverage Factor by

- (i) the Current Ratio on the First Strike Adjustment Date and/or the relevant Adjustment Date (prior to the adjustment) and
- (ii) the quotient of
 - (1) the difference between the Value of the Reference Asset and the Current Strike on the First Strike Adjustment Date and/or the relevant Adjustment Date (prior to the adjustment) and
 - (2) the Value of the Reference Asset.

In the case of Factor Warrants Short

The Ratio will be adjusted on the First Strike Adjustment Date and on each following Adjustment Date after the occurrence of an Adjustment Event by multiplying the Leverage Factor by

- (i) the Current Ratio on the First Strike Adjustment Date and/or the relevant Adjustment Date (prior to the adjustment) and
- (ii) the quotient of
 - (1) the difference between the Current Strike on the First Strike Adjustment Date and/or the relevant Adjustment Date (prior to the adjustment) and the Value of the Reference Asset and
 - (2) the Value of the Reference Asset.

Subject to subparagraph (c) below, the result of the calculation set out in the foregoing paragraphs will be commercially rounded to the Ratio Rounding Amount and will, for the purposes of the Conditions, constitute the new Ratio (the "**Current Ratio**").

- (c) *Ratio Adjustment in the case that a Roll Spread is specified in the applicable Final Terms:*

In the event that that a Roll Spread is specified in the applicable Final Terms, the Ratio will, immediately after being adjusted in accordance with paragraphs 2 (a) or 2 (b) above, be further adjusted by deducting the Roll Factor from the Ratio calculated pursuant to paragraphs 2 (a) or 2 (b) above. The result of this calculation will be commercially rounded to the Ratio Rounding Amount and will, for the purposes of the Conditions, constitute the new Ratio (the "**Current Ratio**").

(3) **Definitions**

"**Adjustment Date**" has the meaning given to it in Section 6 (4) of the General Conditions.

"**Current Strike**" has the meaning given to it in Section 6 (3) of the General Conditions.

"**Adjustment Event**" has the meaning given to it in Section 6 (4) of the General Conditions.

"**First Strike Adjustment Date**" has the meaning given to it in Section 6 (4) of the General Conditions.

"**Leverage Factor**" has the meaning given to it in Section 6 (4) of the General Conditions.

"**Ratio Rounding Amount**" is set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"**Roll Factor**" is the Leverage Factor multiplied by the Roll Spread and further multiplied by the absolute value of the difference between (i) the Ratio on the First Strike Adjustment Date and/or the relevant Adjustment Date (after the adjustment pursuant to paragraphs 2 (a) or 2 (b) of this Section 7) and (ii) the Ratio on the First Strike Adjustment Date and/or the relevant

Adjustment Date (prior to the adjustment pursuant to paragraphs 2 (a) or 2 (b) of this Section 7).

"Roll Spread" means the **"Initial Roll Spread"** specified in Part A (*Payout Specific Terms*) of the applicable Issue Specific Conditions. The Calculation Agent has the right to adjust the Roll Spread with effect as of any Adjustment Date in its reasonable discretion up to the **"Maximum Roll Spread"** set out in Part A (*Payout Specific Terms*) of the applicable Issue Specific Conditions, taking into account prevailing market conditions (such as liquidity of global financial markets, availability and cost of capital and credit, interest rates, borrowing costs, repurchase costs, any imposition or announcement of any legislation or regulation which require higher capital ratio requirements for banks). The aforementioned adjustment of the Roll Spread and the date on which the adjustment becomes effective will be announced in accordance with Section 16 of the General Conditions (*Notices*). Each reference contained in the Conditions to the Roll Spread is deemed a reference to the Roll Spread as adjusted in accordance with the foregoing provisions of this paragraph from (and including) the date on which the adjustment becomes effective.

"Value of the Reference Asset" has the meaning given to it in Section 6 (4) of the General Conditions.

Section 8 – Knock-Out Barrier, Stop-Loss Barrier, Adjustment of Knock Out Barrier, Adjustment of Stop-Loss Barrier

(1) Knock-Out Barrier and/or Stop-Loss Barrier

The **"Knock-Out Barrier"** (in the case of Turbo Warrants, X-Turbo Warrants, Unlimited Turbo Warrants, BEST Turbo Certificates, Unlimited X-Turbo Warrants and BEST X-Turbo Certificates) and/or the **"Stop-Loss Barrier"** (in the case of Mini Future Warrants, Turbo Certificates, X-Mini Future Warrants, X-Turbo Certificates, Closed-End Mini Future Warrants, Closed-End Turbo Certificates, Closed-End X-Mini Future Warrants and Closed-End X-Turbo Certificates) on the Initial Valuation Date is set out in Part A (*Payout Specific Terms*) of the applicable Issue Specific Conditions. Unless otherwise specified in the following paragraphs the Knock-Out Barrier and/or the Stop-Loss Barrier will not be adjusted during the term of the Securities (subject to an adjustment of the Knock-Out Barrier and/or the Stop-Loss Barrier pursuant to the relevant Reference Asset Linked Conditions).

(2) Knock-Out Barrier Adjustment in the case of Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates

The Knock-Out Barrier will be adjusted on a regular basis during their term in the same manner as the Strike on each Adjustment Date (the **"Current Knock-Out Barrier"**) pursuant to Section 6 of the General Conditions (*Strike, Adjustment of Strike*) and/or pursuant to the provisions of the Futures Contract Linked Provisions, i.e. the Current Knock-Out Barrier equals the Current Strike during the term of the Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates.

(3) Stop-Loss Barrier Adjustment in the case of Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates

The Stop-Loss Barrier will be adjusted on a regular basis during their term pursuant to the following provisions:

Subject to the following sentence, the Stop-Loss Barrier is adjusted on every Stop-Loss Adjustment Date at the Adjustment Time by multiplying the Current Strike on the Stop-Loss Adjustment Date after the Adjustment Time by the Stop-Loss Factor. If the Mini Future Warrants are linked to Futures Contracts as Reference Asset and the Current Strike is negative, the Stop-Loss Barrier is adjusted - in the case of Mini Future Long Warrants - by adding the Current Strike to the product of Stop-Loss Buffer and the absolute value of the

Current Strike or - in the case of Mini Future Short Warrants - by deducting the product of Stop-Loss Buffer and the absolute value of the Current Strike from the Current Strike.

The result of the calculation set out in the foregoing paragraph will be rounded up (in the case of Mini Future Long Warrants and/or Turbo Certificates Long and/or X-Mini Future Long Warrants and/or X-Turbo Certificates Long) or rounded down (in the case of Mini Future Short Warrants and/or Turbo Certificates Short and/or X-Mini Future Short Warrants and/or X-Turbo Certificates Short) to the Stop-Loss Barrier Rounding Amount and will, for the purposes of the Conditions, constitute the new Stop-Loss Barrier (the "**Current Stop-Loss Barrier**").

(4) **Definitions**

"**Stop-Loss Adjustment Date**" is set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"**Stop-Loss Barrier Rounding Amount**" has the meaning given to it in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"**Stop-Loss Buffer**" means the Stop-Loss Buffer on the Stop-Loss Adjustment Date. The "**Initial Stop-Loss Buffer**" on the Initial Valuation Date corresponds to the Initial Stop-Loss Buffer as set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions. The Issuer has the right to adjust the Stop-Loss Buffer with effect as of a Stop-Loss Adjustment Date up to the "**Maximum Stop-Loss Buffer**" as set out in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions, if, *inter alia*, the volatility of the Reference Asset to which the Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates are linked changes materially. Each reference contained in the Conditions to the Stop-Loss Buffer shall be construed as a reference to the Stop-Loss Buffer as adjusted in accordance with the preceding sentence of this definition from (and including) the date on which the relevant adjustment as aforesaid becomes effective. The adjustment of the Stop-Loss Buffer and the date on which the adjustment becomes effective will be announced in accordance with Section 16 of the General Conditions (*Notices*).

"**Stop-Loss Factor**" is determined as follows:

(i) in the case of Mini Future Long Warrants and/or Turbo Certificates Long and/or X-Mini Future Long Warrants and/or X-Turbo Certificates Long:

$$1 + \text{Stop} - \text{Loss Buffer}$$

(ii) in the case of Mini Future Short Warrants and/or Turbo Certificates Short and/or X-Mini Future Short Warrants and/or X-Turbo Certificates Short:

$$1 - \text{Stop} - \text{Loss Buffer}$$

Section 9 – Barrier Event

(1) **Barrier Event in the case of Barrier Discount Certificates, Bonus Certificates, Capped Bonus Certificates and Barrier Reverse Convertibles**

A "**Barrier Event**" occurs

- (a) - if Part A (Payout Specific Terms) of the applicable Issue Specific Conditions specifies that a Barrier Observation Period is not applicable - if the Barrier Observation Price of the Reference Asset reaches or falls below the Barrier on the Valuation Date; or
- (b) - if Part A (Payout Specific Terms) of the applicable Issue Specific Conditions stipulates a Barrier Observation Period - if the Barrier Observation Price of the Reference Asset reaches or falls below the Barrier on a Barrier Observation Date within the Barrier Observation Period during the Barrier Observation Hours.

(2) **Barrier Event in the case of Reverse Bonus Certificates and Capped Reverse Bonus Certificates**

A "Barrier Event" occurs

- (a) - if Part A (Payout Specific Terms) of the applicable Issue Specific Conditions specifies that a Barrier Observation Period is not applicable - if the Barrier Observation Price of the Reference Asset reaches or exceeds the Barrier on the Valuation Date; or
- (b) - if Part A (Payout Specific Terms) of the applicable Issue Specific Conditions stipulates a Barrier Observation Period - if the Barrier Observation Price of the Reference Asset reaches or exceeds the Barrier on a Barrier Observation Date within the Barrier Observation Period during the Barrier Observation Hours.

(3) **Definitions**

"**Barrier**" means the barrier specified in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"**Barrier Observation Date**" means the barrier observation date specified in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"**Barrier Observation Hours**" means the barrier observation hours, if any, specified in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"**Barrier Observation Period**" means the barrier observation period, if any, specified in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"**Barrier Observation Price**" means the barrier observation price of the Reference Asset specified in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

Section 10 – Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination

(1) **Occurrence of Event of Default**

"**Event of Default**" means the occurrence of any one or more of the following events:

(a) *Failure to pay Settlement Amount*

The Issuer does not pay and/or deliver the Settlement Amount or, as applicable, any other amount in respect of the Securities when the same is due and payable or deliverable and such failure continues for 30 days; or

(b) *Insolvency of JPMSE*

- (i) JPMSE announces its inability to meet its financial obligations or ceases its payments; or
- (ii) a court opens insolvency proceedings against JPMSE, or JPMSE applies for or institutes such proceedings or offers or makes an arrangement for the benefit of its creditors generally.

(2) **Consequences of an Event of Default**

If an Event of Default has occurred and is continuing, the Holder of any Security may give written notice to the Issuer and the Programme Agent at their specified offices declaring such Security to be immediately repayable, whereupon such Security shall become immediately repayable on such date (such date, the "**Acceleration Date**") for an amount. Such amount shall be, in respect of each Security, the Early Payment Amount in respect of the Acceleration

Date, provided that the Calculation Agent shall disregard any change in the credit worthiness of the Issuer since the Issue Date of the Securities in its determination of such Early Payment Amount, unless the Event of Default shall have been cured by the Issuer or waived by the Holders prior to receipt of such notice by the Issuer and the Programme Agent.

(3) **Early Redemption or Termination for Illegality**

The Issuer may, at its option, redeem or terminate the Securities early (on giving not less than seven nor more than 30 days' irrevocable notice to the Holders (such notice period, the "**Termination Event Notice Period**") (or such other notice period as may be specified as the "Termination Event Notice Period" in Part B (General Terms) of the relevant Issue Specific Conditions)) in the event that it determines in its reasonable discretion that its performance of its obligations under the terms of the Securities has (or there is a substantial likelihood that it will) become unlawful in whole or in part as a result (directly or indirectly) of (x) any change in financial, political or economic conditions or currency exchange rates, or (y) compliance in good faith by the Issuer (or JPMorgan Chase & Co. had it been the Issuer of the Securities) or any relevant subsidiaries or affiliates with any applicable present or future law, rule, regulation, judgement, order or directive of any governmental, administrative or judicial authority or power (including, without limitation, sanctions laws and regulations of the United States, the United Kingdom, the United Nations or the European Union) or interpretation thereof (such event, a "**Termination Event**").

In the event of an early redemption or termination of the Securities following a Termination Event, the Issuer will cause to be paid to each Holder in respect of each such Security held by it the Early Payment Amount.

(4) **Extraordinary Hedge Disruption Event**

Upon the occurrence of an Extraordinary Hedge Disruption Event in relation to any Securities, the Issuer may (but shall not be obliged to) redeem the Securities on such day as shall be notified to the Holders in accordance with Section 16 of the General Conditions (*Notices*) and will, if and to the extent permitted by applicable law, pay to the Holders in respect of each such Security the Early Payment Amount.

An "**Extraordinary Hedge Disruption Event**" means, in relation to any Securities, the occurrence of any of the following events (as applicable):

- (a) if specified to be applicable in Part B (General Terms) of the relevant Issue Specific Conditions, an Extraordinary Hedge Sanctions Event;
- (b) if specified to be applicable in Part B (General Terms) of the relevant Issue Specific Conditions, an Extraordinary Hedge Bail-in Event; and
- (c) if specified to be applicable in Part B (General Terms) of the relevant Issue Specific Conditions, an Extraordinary Hedge Currency Disruption Event.

For the avoidance of doubt, in the event of an inconsistency between the applicable terms of this Section 10 of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, or Termination for Taxation or Adjustment Event Termination*) and the applicable terms of the Reference Asset Linked Conditions, the applicable terms of the Reference Asset Linked Conditions shall prevail (including, without limitation, that if an event may be both an Extraordinary Hedge Disruption Event and an applicable Additional Disruption Event under the Reference Asset Linked Conditions, such event shall be deemed to be an Additional Disruption Event).

If an event may be both an Extraordinary Hedge Disruption Event and a Payment Disruption Event and the Issuer elects to redeem the Securities pursuant to this Section 10 of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, or Termination for Taxation or Adjustment Event Termination*), Section 3(5) of the General Conditions (*Payment Disruption*) shall be deemed not to apply.

For such purpose, the following terms shall have the following meanings:

"Extraordinary Hedge Sanctions Event" means (and shall be deemed to have occurred where), in relation to any Securities, the Calculation Agent determines that, on or after the Issue Date, due to:

- (a) the adoption of, or announcement of, and/or any change in, any applicable law, rule, regulation, judgment, order, sanction, or directive of any governmental, administrative, legislative or judicial authority or power, in each case, relating to any economic or financial sanctions and embargo programmes, such as any restrictions applicable to designated or blocked persons, including but not limited to, those enacted, administered and/or enforced, from time to time, by any agency or other authority of the United States, the United Kingdom, the United Nations or the European Union (or any Member State thereof) (for the purposes of this definition, "**applicable law**"); or
- (b) the promulgation of, or any change in, the formal or informal interpretation of any applicable law by a court, tribunal or regulatory authority with competent jurisdiction,

the performance by a Hedging Entity under the related Underlying Hedge Transactions (or the Related Hedging Entity as if the Related Hedging Entity was a party to the related Underlying Hedge Transactions) has become or (based on any announcements of any of the jurisdictions or authorities referred to in paragraph (a) above or any other publicly available information which the Calculation Agent reasonably considers relevant) there is a substantial likelihood that it will become, unlawful, impossible or otherwise impracticable in whole or in part, and the Hedging Entity (or the Related Hedging Entity as if it was a party to the related Underlying Hedge Transactions) is unable, through commercially reasonable efforts, to modify the Underlying Hedge Transactions and/or establish alternate hedging arrangements such that performance thereunder would not be unlawful, impossible or otherwise impracticable and the risks and/or costs of the Issuer and the Hedging Entity (or the Related Hedging Entity as if it was a party to the related Underlying Hedge Transactions) would not be materially increased thereby.

"Extraordinary Hedge Bail-in Event" means (and shall be deemed to have occurred where), in relation to any Securities, on or after the Issue Date, the Hedging Entity or the counterparty (or counterparties) to the Hedging Entity under the related Underlying Hedge Transactions become(s) the subject of a resolution regime by an applicable resolution authority and, as a direct or indirect result (including without limitation due to the exercise, or publicly announced exercise, or (based on any publicly available information which the Calculation Agent reasonably considers relevant) there is a substantial likelihood that the relevant resolution authority will exercise within the next 90 days, a "bail-in" or other power by such authority under such regime), the Calculation Agent determines that (i) the obligations of the Hedging Entity or the counterparty (or counterparties) to the Hedging Entity under the related Underlying Hedge Transactions are or will be the subject of the exercise of a "bail-in" or (ii) there has otherwise been (or there will be) a material adverse effect on the related Underlying Hedge Transactions, and the Hedging Entity is unable, through commercially reasonable efforts, to modify the Underlying Hedge Transactions and/or establish alternate hedging arrangements which do not materially increase the risks and/or costs of the Issuer and the Hedging Entity.

"Extraordinary Hedge Currency Disruption Event" means (and shall be deemed to have occurred where), in relation to any Securities, on or after the Issue Date, the Calculation Agent determines that:

- (a) (i) a Relevant Governmental Authority has introduced, or has announced its intention to introduce or (based on any publicly available information which the Calculation Agent reasonably considers relevant) there is a substantial likelihood that it will introduce within the next 90 days, a new currency (the "**Substitute Currency**") as the lawful currency within its territory or any part of its territory (and including beyond its territory where a bloc of countries has jointly agreed to adopt the Substitute Currency) in substitution for (or to

circulate together with) its existing lawful currency (the "**Initial Currency**") (such event, a "**Currency Substitution Event**"); and/or

- (ii) a Relevant Governmental Authority has introduced, or has announced its intention to introduce or (based on any publicly available information which the Calculation Agent reasonably considers relevant) there is a substantial likelihood that it will introduce within the next 90 days, restrictions on movements of capital or on payments and transfers into or out of its territory or any part of its territory (and including beyond its territory where a bloc of countries has jointly agreed to adopt the Substitute Currency) (such event, an "**Exchange Control Event**"),

and, in the case of each of paragraphs (a)(i) and (a)(ii) above:

- (x) whether or not such event is in accordance with or in breach of applicable international treaties or other obligations; and
 - (y) for the avoidance of doubt, including the circumstance whereby a country (a "**Departing Country**") within a bloc of countries in a currency union effects, or announces its intention to effect, its withdrawal from the currency bloc and the replacement of the common currency of the currency union with another currency as the lawful currency of the Departing Country; and
- (a) any of, as a direct or indirect result:
- (i) the payment obligations under the Underlying Hedge Transactions are redenominated into another currency following the Currency Substitution Event and/or the Exchange Control Event; and/or
 - (ii) the payment obligations under the Underlying Hedge Transactions are subject to capital controls due to the Exchange Control Event; and/or
 - (iii) the Underlying Hedge Transactions in respect of the Securities have been (or will be) otherwise materially adversely affected by the Currency Substitution Event and/or the Exchange Control Event,

and the Hedging Entity is unable, through commercially reasonable efforts, to modify the Underlying Hedge Transactions and/or establish alternate hedging arrangements which do not materially increase the risks and/or costs of the Issuer and the Hedging Entity.

For such purpose, "**Relevant Governmental Authority**" means, in relation to any applicable territory, any de facto or de jure government (or any agency or instrumentality thereof), court, tribunal, administrative or other governmental authority or any other entity (private or public) charged with the regulation of the financial markets (including the central bank) of such territory.

(5) **Taxation and Early Redemption or Termination for Taxation**

(a) *Obligation to pay Additional Amounts*

Subject to the deduction of any Delivery Expenses or Expenses in accordance with these General Conditions, payments of principal and interest on the Securities will be made without deduction or withholding for or on account of any present or future tax, assessment or other governmental charge, of whatever nature, imposed or levied on such payment, except as required by law or under an agreement with the relevant taxing authority or in connection with an intergovernmental agreement. In that case, unless Part B (General Terms) of the relevant Issue Specific Conditions specifies "Gross Up" not to be applicable, or Part B (General Terms) of the relevant Issue Specific Conditions specifies "Exclude Section 871(m) Taxes from Gross Up" to be applicable in respect of taxes imposed pursuant to Section 871(m) of the U.S. Internal Revenue Code, the Issuer will, subject to certain limitations and exceptions set forth below in Section 10(5)(b) of the General Conditions (*Circumstances in which Additional*

Amounts will not be paid), pay to a Holder of Securities such additional amounts ("**Additional Amounts**") as may be necessary so that every net payment by the Issuer or any of its Paying Agents of principal or interest with respect to the Securities after deduction or withholding for or on account of any such present or future tax, assessment or other governmental charge on such payment imposed by or within a Relevant Jurisdiction upon such Holder (other than with respect to a Holder that is a resident of such Relevant Jurisdiction), will not be less than the amount provided for in such Securities to be then due and payable.

(b) Circumstances in which Additional Amounts will not be paid

The Issuer will not be required to make any payment of Additional Amounts for or on account of:

- (i) any tax, assessment or other governmental charge or withholding which would not have been so imposed but for (A) the existence of any present or former connection between such Holder (or between a fiduciary, settlor, beneficiary, member or shareholder of, or possessor of a power over, such Holder, if such Holder is an estate, a trust, a partnership or a corporation) and the Relevant Jurisdiction including, without limitation, such Holder (or such fiduciary, settlor, beneficiary, member, shareholder or possessor) being or having been present therein, being or having been a citizen or resident thereof, being or having been engaged in a trade or business therein or having had a permanent establishment therein, or (B) the failure of such Holder, any agent in the chain of custody over the payment, or the beneficial owner to comply with any certification, identification or information reporting requirements including, under any applicable tax treaty, to establish entitlement to exemption from or reduction of such tax, assessment or other governmental charge;
- (ii) any estate, inheritance, gift, sales, transfer, personal property, or any similar tax, assessment or governmental charge;
- (iii) any tax, assessment or other governmental charge which is payable other than by withholding from payments of principal of or interest on such Security;
- (iv) any tax, assessment or other governmental charge which is required to be withheld by a Paying Agent from payments of principal or of interest on any Security, if such payment can be made without such withholding by at least one other Paying Agent;
- (v) in respect of any Securities, any tax, assessment, or other governmental charge payable by a Holder, or by a third party on behalf of a Holder, who is liable for such taxes, assessments or governmental charges in respect of any Security by reason of the Holder or the third party's having some connection with the Relevant Jurisdiction other than the mere holding of the Security;
- (vi) any tax assessment, or other governmental charge payable by way of withholding or deduction by a Holder, or by a third party on behalf of a Holder, who could lawfully avoid (but has not so avoided) such deduction or withholding by complying or procuring that any third party complies with any statutory requirements or by making or procuring that any third party makes a declaration of non-residence or other similar claim for exemption to any tax authority in the place where the relevant Security (or the registered certificate representing it) is presented for payment;
- (vii) any taxes, duties, or other governmental charges payable by any person acting as a custodian bank or collecting agent on behalf of a Holder, or otherwise in any manner which does not constitute a deduction or withholding by the Issuer from payments of principal or interest made by it;
- (viii) any withholding or deduction imposed in connection with FATCA on payments to a Holder, beneficial owner, or any agent having custody or control over a payment made by the Issuer or any agent in the chain of payment;
- (ix) any withholding or deduction imposed under Section 871(m) of the U.S. Internal Revenue Code, if, in the reasonable judgment of the Issuer, withholding would not

have been imposed but for the Holder or beneficial owner (or a related party thereof) engaging in one or more transactions (other than the mere purchase of the Security) whether or not in connection with the acquisition, holding or disposition of the Security that establishes the withholding obligation;

- (x) any deduction or withholding for or on account of any present or future tax, assessment or other governmental charge where it is imposed by or within a jurisdiction other than a Relevant Jurisdiction;
- (xi) any deduction or withholding for or on account of any tax, assessment or other governmental charge imposed by or within a Relevant Source Jurisdiction to the extent the deduction or withholding arises as a result of a Relevant Change of Law, save where such deduction or withholding arises through any present or former connection of the Issuer to the Relevant Source Jurisdiction; or
- (xii) any combination of the above (as applicable),

nor shall Additional Amounts be paid with respect to a payment of principal or interest on any Security to a Holder that is not the beneficial owner of such Security to the extent that the beneficial owner thereof would not have been entitled to the payment of such Additional Amounts had such beneficial owner been the Holder of such Security.

(c) Early Redemption or Termination for Taxation – FATCA

The Issuer may, at its option, redeem or terminate (as applicable) some or all of the Securities (on giving not less than seven or more than 30 days' irrevocable notice to Holders (such notice period, the "**Tax Termination Event Notice Period**") (or, such other notice period specified as the "Tax Termination Event Notice Period" in Part B (General Terms) of the relevant Issue Specific Conditions)) in the event that the Issuer determines that:

- (i) it has, or there is a substantial likelihood that it will, become subject to withholding imposed on a payment made to it on account of the Issuer's inability to comply with the reporting requirements imposed by FATCA, provided that (1) such inability to comply with the reporting requirements is attributable to non-compliance by any Holder of such Securities (or a withholding agent (if any) in the chain of custody of payments made to the Holders) with the Issuer's requests for certifications, beneficial ownership information or identifying information and (2) compliance with the reporting requirements would (or there is a substantial likelihood that it would) preclude such withholding;
- (ii) there is a substantial likelihood that it will otherwise violate any requirement of, or an agreement entered into with a taxing authority with respect to, FATCA; or
- (iii) there is a substantial likelihood that the Securities will be treated, for U.S. federal income tax purposes, as being in bearer form,

each such event, a "**Tax Termination Event**".

Upon the occurrence of a Tax Termination Event described in paragraphs (i) or (ii), Securities held by compliant Holders, in addition to those held by non-compliant Holders, may be redeemed or terminated. Upon a Tax Termination Event described in paragraph (iii), all of the Securities of such Series will be redeemed or terminated.

In the event of an early redemption or termination of the Securities following a Tax Termination Event, the Issuer will cause to be paid to each such Holder in respect of each such Security held by it the Early Payment Amount.

(d) Early Redemption or Termination for Taxation – Additional Amounts/Underlying Hedge Transactions

The Securities may be redeemed or terminated (as applicable) at the option of the Issuer in whole, but not in part, at any time on giving not less than 30 nor more than 60 calendar days'

notice to the Holders (which notice shall be irrevocable), at their Early Payment Amount, where:

- (i) the Issuer has or will (or there is a substantial likelihood that it will) become obliged to pay any Additional Amounts as provided or referred to in Section 10(5)(a) of the General Conditions (*Obligation to pay Additional Amounts*); or
- (ii) if "Early Redemption for Tax on Underlying Hedge Transactions" is specified as applicable in Part B (General Terms) of the relevant Issue Specific Conditions, an Underlying Hedge Entity has incurred or will (or there is a substantial likelihood that it will) incur a materially increased cost with respect to taxes (including, without limitation, grossing-up payments or receiving payments net of withholding) in performing its obligations in relation to the Underlying Hedge Transactions (including, without limitation, due to any increase in tax liability, decrease in tax benefit or other adverse effect on its tax position with respect to an Underlying Hedge Tax Jurisdiction),

in each case (x) as a result of (I) any action taken by a Relevant Jurisdiction or an Underlying Hedge Tax Jurisdiction (as applicable) or any political subdivision or any authority thereof or therein having power to tax or brought in a court of competent jurisdiction on or after the Issue Date; or (II) the proposal, adoption, finalisation or expiration of any laws, regulations, or administrative guidance (including due to the mere passage of time) of a Relevant Jurisdiction or an Underlying Hedge Tax Jurisdiction or any political subdivision or any authority thereof or therein having power to tax, or any change in, or amendment to (or proposed change or amendment to), proposed or final laws, regulations, or administrative guidance, or any change in the application or official interpretation of proposed or final laws, regulations or administrative guidance (including by inaction, such as the failure to finalise proposed regulations or administrative guidance, or due to the mere passage of time), which proposal, adoption, finalisation, expiration, change or amendment becomes effective on or after the Issue Date or with respect to payments made on or after the Issue Date; and (y) such obligation or cost with respect to taxes cannot be avoided by the Issuer or Underlying Hedge Entity (as applicable) taking reasonable measures available to it (as determined by the Issuer or the Calculation Agent on their behalf),

PROVIDED THAT the Securities may be redeemed by giving less than 30 calendar days' or more than 60 calendar days' notice to the Holders (which notice shall be irrevocable) if compliance with the 30 calendar day minimum or 60 calendar day maximum notice period would (or there is a substantial likelihood that compliance would) cause the Issuer to become obligated to pay Additional Amounts (or an increased amount of Additional Amounts) or cause an Underlying Hedge Entity to incur a materially increased tax cost in performing its obligations in relation to the Securities.

Before the publication of any notice of redemption pursuant to this Section 10(5) of the General Conditions (*Taxation and Early Redemption or Termination for Taxation*), the Issuer shall deliver to the Programme Agent a certificate duly signed by the Issuer stating that the Issuer is entitled to effect such redemption and setting forth a statement of facts showing that the conditions precedent to the right of the Issuer so to redeem have occurred, and an opinion of independent legal advisers of recognised standing to the effect that the Issuer has or will (or there is a substantial likelihood that it will) become obliged to pay Additional Amounts or that an Underlying Hedge Entity has incurred or will (or there is a substantial likelihood that it will) incur a materially increased cost with respect to taxes in performing its obligations in relation to the Underlying Hedge Transactions, in each case as a result of such action, proposal, adoption, finalisation, expiration, change, or amendment.

For the purposes of this Section 10(5)(d) of the General Conditions (*Early Redemption or Termination for Taxation*), the term "Relevant Jurisdiction" shall also include any jurisdiction that enters into an intergovernmental agreement with the United States in furtherance of FATCA.

- (e) *Termination in the case of the occurrence of a Section 871(m) Event*

On the occurrence at any time of circumstances in which the Issuer is (or, in the determination of the Calculation Agent, there is a reasonable likelihood that, within the next 30 business days, the Issuer will become) subject to any withholding or reporting obligations pursuant to Section 871(m) of the U.S. Internal Revenue Code of 1986, as amended, with respect to the relevant Securities (a "**Section 871(m) Event**"), provided that such Section 871(m) Event occurs after the Issue Date of the relevant Securities, the Issuer has the right to terminate the Securities extraordinarily by giving notice to the Holders in accordance with Section 16 of the General Conditions (*Notices*) designating the early payment date (the "**Early Payment Date**"). On the Early Payment Date, the Issuer shall redeem all, but not some only, of the Securities and it shall pay an amount equal to the Early Payment Amount (as defined under Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*)) to each Holder in respect of each Security held by it. Payment of the Early Payment Amount will be made in such manner as shall be notified to the Holders in accordance with Section 16 of the General Conditions (*Notices*).

(6) **Adjustment Event Termination in the case of Factor Warrants that are not linked to a Factor Index as Reference Asset**

In the case of Factor Warrants that are not linked to a Factor Index as Reference Asset such Factor Warrants will terminate automatically (the "**Adjustment Event Termination**") in the case that the Value of the Reference Asset that is determined during a ten minutes period after the occurrence of an Adjustment Event (see Section 6(4) of the General Conditions (*Definitions*)) is equal to or below the Current Strike (in the case of Factor Warrants Long) or equal to or above the Current Strike (in the case of Factor Warrants Short) last applicable before the occurrence of the Adjustment Event. Following an Adjustment Event Termination the Holder receives the Adjustment Event Termination Amount on the fifth Business Day after the day on which the Adjustment Event has occurred. The occurrence of an Adjustment Event Termination will be notified to the Holders in accordance with § 16 of the General Conditions (*Notices*).

(7) **Definitions**

"**Adjustment Event Termination Amount**" means the adjustment event termination amount specified in Part A (Payout Specific Terms) of the applicable Issue Specific Conditions.

"**Early Payment Amount**" means (a) – in the case of an early redemption pursuant to the Reference Asset Linked Conditions or, in the case of an early termination pursuant to paragraph (5)(e) above (*Termination in the case of the occurrence of a Section 871(m) Event*), an amount determined by the Calculation Agent immediately prior to the Section 871(m) Event or any other event that would entitle the Issuer to redeem the Securities early or (b) - in all other cases - an amount determined by the Calculation Agent on the second Business Day immediately preceding the due date for the early redemption or settlement of the Securities, representing the fair market value of such Securities, in any case, determined using its internal models and methodologies by reference to such factors as the Calculation Agent may consider to be appropriate including, without limitation:

- (a) market prices or values for the reference asset(s) and other relevant economic variables (such as interest rates and, if applicable, exchange rates) at the relevant time taking into account the bid or offer prices of the reference asset(s) (as relevant);
- (b) the remaining term of the Securities had they remained outstanding to scheduled maturity or expiry and/or any scheduled early redemption;
- (c) the value at the relevant time of any minimum redemption or cancellation amount which would have been payable had the Securities remained outstanding to scheduled maturity or expiry and/or any scheduled early redemption or exercise date;

- (d) if applicable, accrued interest;
- (e) internal pricing models;
- (f) any applicable credit spreads in respect of the Issuer;
- (g) prices at which other market participants might bid for securities similar to the Securities; and
- (h) any other information which the Calculation Agent considers to be relevant (but ignoring the event which resulted in such early redemption).

"Expenses" means all expenses, costs, charges, levies, tax, duties, withholding, deductions or other payments including without limitation, all depository, custodial, registration, transaction and exercise charges and all stamp, issues, registration or, securities transfer or other similar taxes or duties incurred by the Issuer and/or a Hedging Entity in respect of the Issuer's obligations under the Securities.

"Hedging Entity" means the Issuer and any affiliate(s) of the Issuer and any entity (or entities) acting on behalf of the Issuer engaged in any underlying or hedging transactions relating to the Securities and/or Reference Assets in respect of the Issuer's obligations under the Securities.

"Related Hedging Entity" means JPMorgan Chase & Co.

"Relevant Change of Law" means as a result of:

- (a) any action taken by a Relevant Source Jurisdiction or any political subdivision or any authority thereof or therein having power to tax or brought in a court of competent jurisdiction on or after the Issue Date; or
- (b) the proposal, adoption, finalisation or expiration of any laws, regulations, or administrative guidance (including, due to the mere passage of time) of a Relevant Source Jurisdiction or any political subdivision or any authority thereof or therein having power to tax, or any change in, or amendment to (or proposed change or amendment to), proposed or final laws, regulations, or administrative guidance, or any change in the application or official interpretation of proposed or final laws, regulations or administrative guidance (including by inaction, such as the failure to finalise proposed regulations or administrative guidance, or due to the mere passage of time), which proposal, adoption, finalisation, expiration, change or amendment becomes effective on or after the Issue Date or with respect to payments made on or after the Issue Date,

a payment becoming subject to Relevant Source Jurisdiction withholding.

"Relevant Incorporation Jurisdiction" means the country (or any political subdivision or taxing authority thereof or therein) in which the Issuer is organised or incorporated.

"Relevant Jurisdiction" means a Relevant Incorporation Jurisdiction or Relevant Source Jurisdiction, as applicable.

"Relevant Source Jurisdiction" means the country (or any political subdivision or taxing authority thereof or therein) in which payments of any present or future tax, assessment or other governmental charge of whatever nature are regarded as being sourced otherwise than by virtue of being a Relevant Incorporation Jurisdiction.

"Underlying Hedge Entity" means the Issuer or any affiliate(s) of the Issuer or any entity (or entities) acting on behalf of the Issuer.

"Underlying Hedge Tax Jurisdiction" means (i) the country (or any political subdivision or taxing authority thereof or therein) in which the Underlying Hedge Entity or its applicable counterparty is organised or incorporated or in which payments of any present or future tax,

assessment or other governmental charge of whatever nature are regarded as being sourced, (ii) the United States and (iii) any other jurisdiction that enters into an intergovernmental agreement with the United States in furtherance of FATCA.

"Underlying Hedge Transactions" means, in relation to the Securities, any purchase, sale, entry into or maintenance of one or more (a) positions or contracts in securities, options, futures, derivatives and/or foreign exchange and/or (b) other instruments or arrangements (howsoever described) in order to hedge individually or on a portfolio basis the Issuer's obligations under such Securities.

Section 11 – Ordinary Termination Right of the Issuer

Ordinary Termination Right of the Issuer

If **"Ordinary Termination Right of the Issuer"** has been specified in Part B (General Terms) of the applicable Issue Specific Conditions to be not applicable the Issuer has no ordinary termination right.

If **"Ordinary Termination Right of the Issuer"** has been specified in Part B (General Terms) of the applicable Issue Specific Conditions to be applicable, the Issuer is entitled to terminate the Securities at all time in whole, but not in part, through an announcement in accordance with Section 16 of the General Conditions (*Notices*) stating the date on which the termination becomes effective (the **"Termination Date"**) and unless otherwise specified within Part B (General Terms) of the applicable Issue Specific Conditions subject to a termination period of at least five (5) Business Days (the **"Termination Notice Period"**) prior to the Termination Date. In the case of an ordinary termination of the Securities pursuant to this Section 11 of the General Conditions each Holder shall receive the Settlement Amount. For the purposes of calculating the Settlement Amount the Termination Date is regarded as the Valuation Date. The Settlement Amount in the case of an ordinary termination of the Securities by the Issuer will be redeemed on the Maturity Date.

Section 12 – Holder, Transferability

(1) Holder

In respect of the Securities, **"Holder"** means any holder of a proportionate co-ownership interest or similar right in the Global Bearer Note.

(2) Transferability

The Securities shall be transferable in accordance with applicable law and the terms and regulations of the Relevant Clearing System through whose books such Securities are transferred.

Any number of Securities may be transferred in one or more transaction in the Securities unless (a) the Securities are listed on a stock exchange and the rules of that stock exchange govern the number of Securities which may be transferred in a transaction in the Securities, in which case the applicable rules of that stock exchange, as amended from time to time, must be complied with, or (b) the applicable Issue Specific Conditions specifies a **"Minimum Trading Size"** in Part B (General Terms), in which case the smallest number of Securities that may be transferred in a single transaction in the Securities shall be the Minimum Trading Size, or such other Minimum Trading Size as the Issuer may from time to time notify the Holders in accordance with Section 16 of the General Conditions (*Notices*).

(3) Compulsory Transfer or Redemption

Securities may not be legally or beneficially owned by any U.S. Person at any time nor offered, sold, transferred, pledged, assigned, delivered, exercised or redeemed at any time within the United States or to, or for the account or benefit of, any U.S. Person; provided, however, that this restriction shall not apply to any U.S. Person that is an Affiliate of the Issuer. If the Issuer determines at any time that any Security is legally or beneficially owned

by any U.S. Person that is not an Affiliate of the Issuer, the Issuer may direct the Holder to sell or transfer such Security to a person who either is not a U.S. Person or is an Affiliate of the Issuer within 14 days following receipt of notice of the direction. If the Holder fails to sell or transfer such Security within such period, the Issuer may at its discretion (x) cause such Security to be sold either to an acquirer selected by the Issuer that certifies to the Issuer that such acquirer is not a U.S. Person or to an Affiliate of the Issuer, on terms as the Issuer may choose, subject to the purchaser representations and requirements and transfer restrictions set out herein (and in the Agency Agreement), and, pending such transfer, no further payments will be made in respect of such Security or (y) give notice to the Holder that such Security will be redeemed by the Issuer at the Early Payment Amount on the date specified in such notice.

Section 13 – Agents

(1) Calculation Agent

(a) Status of Calculation Agent

The "**Calculation Agent**" is set out in Part B (General Terms) of the applicable Issue Specific Conditions. The Calculation Agent acts solely as agent of the Issuer and does not assume any obligations or duty to, or relationship of agency or trust for or with, any Holder. In making any determination or exercising any discretion, the Calculation Agent is not obliged to (and shall not) consider the individual interests or circumstances of any particular Holder. The Calculation Agent shall be exempt from the restrictions of self-dealing.

(b) Standard of care for calculation, determination or other exercise of discretion

All calculations and determinations and other exercises of discretion made by the Calculation Agent or the Issuer under the Conditions shall be made in the reasonable discretion of the respective entity.

(c) Delegation

The calculation functions and other discretionary actions (including, but not limited to duties to make determinations) required of the Calculation Agent may be delegated to any such person as the Calculation Agent, in its reasonable discretion, may decide.

(d) Calculations and determinations all binding

All calculations and determinations made by the Calculation Agent in respect of the Securities shall be final and binding on the Issuer and Holders in the absence of gross negligence or willful misconduct.

(e) Two or more Calculation Agents

Where more than one Calculation Agent is appointed in respect of the Securities, references in these General Conditions to the Calculation Agent shall be construed as each Calculation Agent performing its respective duties under the Conditions of the Securities.

(f) Replacement of Calculation Agent

The Issuer has the right at any time to replace the Calculation Agent with a different bank or, to the extent permitted by law, by a financial services institution to appoint one or several additional calculation agents and to revoke their appointment. Any replacement, appointment and revocation of the Calculation Agent as aforesaid will be announced in accordance with Section 16 of the General Conditions (*Notices*).

(2) Programme Agent and/or Additional Agents

(a) *Appointment and replacement of Agents*

The "**Programme Agent**", the "**Paying Agent**" and/or the "**Delivery Agent**" and/or the "**Additional Agent(s)**" (together the "**Agents**") are set out in Part B (General Terms) of the applicable Issue Specific Conditions. The Issuer has the right at any time to replace the Programme Agent, the Paying Agent, the Delivery Agent or any Agent with a different bank or, to the extent permitted by law, by a financial services institution with registered seat in one of the member states of the European Union, to appoint one or several additional agents and to revoke their appointment. Any replacement, appointment and revocation of the Programme Agent, the Paying Agent, the Delivery Agent, or, as the case may be, any other Agent as aforesaid will be announced in accordance with Section 16 of the General Conditions (*Notices*).

(b) *Resignation of Agents*

Each of the Programme Agent, the Paying Agent, the Delivery Agent and any other Agent(s) has the right at all times to resign from their office as Programme Agent, Paying Agent, the Delivery Agent, or, as the case may be, Agent. The resignation becomes effective only upon appointment of a different bank or, to the extent permitted by law, a financial services institution with registered seat in one of the member states of the European Union as Programme Agent, Paying Agent, Delivery Agent or Agent by the Issuer. Resignation and appointment are announced in accordance with Section 16 of the General Conditions (*Notices*).

(c) *Status of Agents*

The Agents act, in each case, solely as agent of the Issuer and does not assume any obligations or duty to, or relationship of agency or trust for or with, any Holder. The Programme Agent, the Paying Agent, the Delivery Agent and any other Agent shall be exempt from the restrictions of self-dealing.

(3) **Verification of Authorisation**

None of the Issuer, the Calculation Agent, the Programme Agent, the Paying Agent, the Delivery Agent or any other Agent is required to verify the authorization of those persons exercising Securities.

Section 14 – Modifications

Modification of the Securities without Holder consent

- (a) The Issuer may in its reasonable discretion, without the consent of the Holders, correct any manifest clerical or calculation errors or similar manifest incorrectness in the Conditions. A clerical or calculation error or similar incorrectness shall be deemed manifest if a Holder who is well-informed in the relevant type of Securities is able to perceive such error, especially when taking into account the Issue Price and the further factors that determine the value of the Securities. Any corrections within the meaning of this paragraph (a) shall be effective and binding upon notification to the Holders in accordance with Section 16 of the General Conditions (*Notices*).
- (b) In addition, the Issuer may, without the consent of the Holders, amend or supplement in its reasonable discretion (*billiges Ermessen*, Section 315 of the German Civil Code ("**BGB**")) any contradictory or incomplete provisions of the Conditions, provided that only amendments and supplements which are reasonably acceptable to the Holder having regard to its interests shall be permitted, i.e. those which do not materially prejudice the interests of the Holders or which, when read together with the other information included in this Base Prospectus and the relevant Issue Specific Conditions, are manifest within the meaning of paragraph (a). Any corrections within the meaning of this paragraph (b) shall be effective and binding upon notification to the Holders in accordance with Section 16 of the General Conditions (*Notices*).

- (c) In the event of a correction pursuant to paragraph (a) or an amendment or supplement pursuant to paragraph (b), that adversely affects the Holder, such Holder may terminate its Securities with immediate effect by written termination notice to the Programme Agent at any time during the period of six weeks following notification of such correction, amendment or supplement. In the notice pursuant to paragraph (a) or paragraph (b), as applicable, the Issuer shall advise the Holder of its potential termination right at the Early Payment Amount. The termination by the Holder requires the following to be effective: the receipt of a termination notice bearing a legally binding signature and (A) the transfer of the Securities to the account of the Programme Agent or (B) the irrevocable instruction to the Programme Agent to withdraw the Securities from a securities account maintained with the Programme Agent (by transfer posting or assignment), in each case within such six-week period. The termination notice must contain the following information: (A) the name of the Holder, (B) the designation and number of the Securities terminated, and (C) a specification of the bank account to which the Early Payment Amount shall be credited. The termination date for the purposes of this paragraph (c) shall be the day on which the termination notice or the Securities is/are received by the Programme Agent, whichever occurs later.
- (d) Notwithstanding paragraphs (a) and (b), the Issuer may call the Securities for redemption in whole, but not in part, by giving notice in accordance with Section 16 of the General Conditions (*Notices*) if the conditions for avoidance pursuant to Section 119 et seq. BGB are fulfilled in relation to the Holders. The termination date for the purposes of this paragraph (d) shall be the day on which the notice is given. Notice of termination must be given immediately after the Issuer has gained knowledge of the reason for termination.
- (e) If an effective termination pursuant to paragraphs (c) or (d) has been made, the Issuer will pay the Early Payment Amount per Security to the Holders. The Issuer shall transfer the Early Payment Amount to the Relevant Clearing System for the credit of the account of the relevant holder in the Relevant Clearing System or, in case of termination by the Holder, to the account specified in the termination notice. The provisions of Section 3 of the General Conditions (*Settlement*) shall apply *mutatis mutandis*. Upon payment of the Early Payment Amount, all rights arising from the surrendered Securities shall be extinguished. The foregoing shall not affect any rights of the Holder to claim damages (*Ersatz eines Vertrauensschadens*) pursuant to Section 122 para. 1 BGB unless such claims are excluded due to knowledge or negligent lack of knowledge of the reason of termination on the part of the Holder pursuant to Section 122 para. 2 BGB.
- (f) The provisions of the BGB on the interpretation (*Auslegung*) and avoidance (*Anfechtung*) of declarations of intent shall remain unaffected. This Section 14 of the General Conditions (*Modifications*) shall be without prejudice to any avoidance rights which a Holder may have under general provisions of law.

Section 15 – Purchase, Cancellation and Further Issues

(1) Purchase

The Issuer and any of its subsidiaries or affiliates may at any time purchase Securities. Purchases may be made at any price in the open market or by tender or private treaty. Any Securities so purchased may be held or resold or surrendered for cancellation, all at the discretion of the Issuer.

(2) Cancellation

The obligations of the Issuer in respect of Securities surrendered for cancellation shall be discharged following redemption and cancellation of the Securities by the Issuer.

(3) Further Issues

The Issuer may from time to time without the consent of the Holders create and issue further securities of any Series or Tranche, having the same terms and conditions as the relevant Securities (except for, in certain cases, the Issue Date and/or the Issue Size) and so that the

same shall be consolidated and form a single series with the applicable Securities of that Series or Tranche and references in these General Conditions to "**Securities**" shall be construed accordingly.

Section 16 – Notices

(1) Publication

Publications concerning the Securities will be made on the "**Website**" set out in Part B (General Terms) of the applicable Issue Specific Conditions (or on any other website on which the Issuer elects to publish announcements having given prior notice of at least six weeks in accordance with the provisions of these Conditions). To the extent that required by law, or exchange regulations or if the Issuer otherwise considers it practical and helpful to Holders, announcements will be made in addition in a newspaper of general circulation in the Public Offer Jurisdiction(s). Any such announcement will be deemed to have been made on the date of first publication of such announcement.

(2) Notice via Relevant Clearing System

The Issuer has the right, in addition to the publication of a notice pursuant to paragraph (1) of this Section, to deliver a notice to the Relevant Clearing System for communication by them to the Holders of the Securities. Any such notice shall be deemed to have been given to the Holders of the Securities on the day after the day on which such notice was given to the Relevant Clearing System. Even if the notice is communicated by the Relevant Clearing System the first publication pursuant to paragraph (1) sentence 3 remains decisive for the time of effectiveness of the notice.

Section 17 – Substitution

(1) Right of Substitution

The Issuer may (provided it has complied with the requirements set out in Section 17(2)(a) to (f) (*Conditions for substitution*) (inclusive)) at any time, without the consent of the Holders, substitute for itself any company from JPMorgan Chase & Co. and its consolidated subsidiaries (the "**Substitute**") provided, however, that in respect of Securities issued by JPMSE, (i) JPMSE has or will (or based on an opinion of counsel to JPMSE, there is a substantial likelihood that it will) become obliged to pay Additional Amounts as provided or referred to in Section 10(5)(a) of the General Conditions (*Taxation and Early Redemption or Termination for Taxation – Obligation to pay Additional Amounts*) or (ii) an Underlying Hedge Entity has incurred or will (or based on an opinion of counsel to such Underlying Hedge Entity there is a substantial likelihood that it will) incur a materially increased cost with respect to taxes (including, without limitation, grossing-up payments or receiving payments net of withholding) in performing its obligations in relation to the Underlying Hedge Transactions (including, without limitation, due to any increase in tax liability, decrease in tax benefit or other adverse effect on its tax position with respect to an Underlying Hedge Tax Jurisdiction), in each case (x) as a result of (I) any action taken by a Relevant Jurisdiction or an Underlying Hedge Tax Jurisdiction (as applicable) or any political subdivision or any authority thereof or therein having power to tax or brought in a court of competent jurisdiction on or after the Issue Date; or (II) the proposal, adoption, finalisation or expiration of any laws, regulations, or administrative guidance of a Relevant Jurisdiction, Underlying Hedge Tax Jurisdiction or any political subdivision or any authority thereof or therein having power to tax, or any change in, or amendment to (or proposed change or amendment to), proposed or final laws, regulations, or administrative guidance, or any change in the application or official interpretation of proposed or final laws, regulations or administrative guidance (including by inaction, such as the failure to finalise proposed regulations or administrative guidance, or due to the mere passage of time), which proposal, adoption, finalisation, expiration, change or amendment becomes effective on or after the Issue Date or with respect to payments made on or after the Issue Date; and (y) such obligation or cost with respect to taxes cannot be avoided

by the Issuer or Underlying Hedge Entity (as applicable) taking reasonable measures available to it (as determined by the Issuer or the Calculation Agent on their behalf).

For the purposes of this Section 17 of the General Conditions (*Substitution*), the term "**Relevant Jurisdiction**" shall also include any jurisdiction that enters into an intergovernmental agreement with the United States in furtherance of FATCA.

(2) **Conditions for substitution**

The right of substitution granted to the Securities is subject to the following:

- (a) the Substitute assuming all obligations of the Issuer or any previous substituted company arising from or in connection with the Securities;
- (b) the Issuer and the Substitute having obtained all necessary authorisations and being able to transfer all amounts required for the fulfilment of the payment obligations under the Securities to the Programme Agent (in the currency required under the Securities) without being obliged to deduct or withhold any taxes or other duties of whatever nature levied by the country in which the Substitute or the Issuer has its domicile or tax residence;
- (c) the Substitute agreeing to indemnify and hold harmless each Holder of the Securities against (i) any tax, duty, assessment or governmental charge imposed on such Holder of the Securities by (or by any authority in or of) the jurisdiction of the country of the Substitute's residence for tax purposes and, if different, of its incorporation which would not have been so imposed if the Substitution had not been made and (ii) any tax, duty, assessment or governmental charge, any cost or expense in respect of such Substitution;
- (d) the Issuer unconditionally and irrevocably guarantees all obligations of the Substitute under the Securities for the benefit of the Holders and provided that the text of that guarantee is published in accordance with Section 16 of the General Conditions (*Notices*);
- (e) all measures, conditions and steps that have to be initiated, fulfilled and carried out (including obtaining necessary consents) in order to ensure that the Securities constitute lawful, effective and binding obligations of the Substitute have been initiated, fulfilled and carried out and the Securities are legally valid and effective without restrictions; and
- (f) if the Securities are listed on a stock exchange and the rules of such exchange (or other regulatory authority) so require, the Issuer notifying such substitution in accordance with applicable rules and regulations.

A notice of any Substitution in accordance with this Section 17 of the General Conditions (*Substitution*) will be published in accordance with Section 16 of the General Conditions (*Notices*).

(3) **References to Issuer**

Where the Issuer is substituted for a Substitute, any reference to the Issuer in these General Conditions shall be deemed to be a reference to the Substitute.

Section 18 – Prescription

The period for presentation of the Securities (pursuant to section 801 paragraph 1 sentence 1 of the German Civil Code) shall be ten years from the date on which the relevant obligation of the Issuer under the Securities first becomes due, and the period of limitation for claims under the Securities presented during the period for presentation shall be two years calculated from the expiration of the

presentation period. For the avoidance of doubt: in the case of interest, sections 195 and 199 of the German Civil Code apply.

Section 19 – Governing Law, Place of Jurisdiction

(1) Governing Law

The Securities are governed by and shall be construed in accordance with, German law.

(2) Place of Jurisdiction

The courts of Frankfurt am Main are to have jurisdiction to settle any Proceedings that may arise out of or in connection with any Securities (including their formation) and accordingly any Proceedings may be brought in such court. In respect of the Securities, the Issuer irrevocably submits to the jurisdiction of the courts of Frankfurt am Main and waives any objection to Proceedings in such court on the ground of venue or on the ground that the Proceedings have been brought in an inconvenient forum. These submissions are made for the benefit of each of the holders of the Securities and shall not affect the right of any of them to take Proceedings in any other court of competent jurisdiction nor shall the taking of Proceedings in one or more jurisdictions preclude the taking of Proceedings in any other jurisdiction (whether concurrently or not).

"**Proceedings**" means any legal action or proceedings arising out of or in connection with the Securities.

ANNEX I TO THE GENERAL CONDITIONS - REFERENCE ASSET LINKED CONDITIONS

The Reference Asset Linked Conditions contain additional provisions in relation to the respective reference asset set out in this Annex to the General Conditions. The Issue Specific Conditions will specify which set of Reference Asset Linked Conditions apply to the respective Series of Securities.

A. SHARE LINKED PROVISIONS

These Share Linked Provisions shall apply to Securities for which the relevant Issue Specific Conditions specify that the Share Linked Provisions are applicable.

1. Consequences of Disrupted Days

If the Calculation Agent determines that any Reference Date is a Disrupted Day, then the Reference Date for such Share shall be the first succeeding Scheduled Trading Day that the Calculation Agent determines is not a Disrupted Day in respect of such Share, unless the Calculation Agent determines that each of the consecutive Scheduled Trading Days equal in number to the Maximum Days of Disruption in respect of such Share immediately following the Scheduled Reference Date is a Disrupted Day for such Share. In that case:

- (a) the last consecutive Scheduled Trading Day shall be deemed to be the Reference Date for such Share, notwithstanding the fact that such day is a Disrupted Day for such Share; and
- (b) the Calculation Agent shall, in its reasonable discretion, determine the value for such Share (as of the Valuation Time) on that last consecutive Scheduled Trading Day, taking into account any relevant market conditions at the time of such determination, and such value as determined by the Calculation Agent pursuant to this paragraph (b) shall be deemed to be the Reference Asset Price in respect of the relevant Reference Date.

2. Fallback Valuation Date

Notwithstanding any other terms of the Share Linked Provisions, if a Fallback Valuation Date is specified in the relevant Issue Specific Conditions to be applicable to any Reference Date (any such date being, a "**Relevant Date**") for a Share, and if:

- (a) following adjustment of the original date on which such Relevant Date is scheduled to fall pursuant to either or both of Share Linked Provision 1 (*Consequences of Disrupted Days*) or Share Linked Provision 11 (*Definitions*), the Relevant Date in respect of a Share would otherwise fall after the Fallback Valuation Date in respect of the Share; or
- (b) the Maximum Days of Disruption for the Relevant Date is specified to be "Zero (0)" or "None",

then the Fallback Valuation Date shall be deemed to be the Relevant Date for the Share. If the Fallback Valuation Date is not a Scheduled Trading Day or is a Disrupted Day relating to that Share, as the case may be, then the Calculation Agent shall determine in its reasonable discretion the value for the Share as of the relevant Valuation Time on such Fallback Valuation Date and such determination by the Calculation Agent pursuant to this Share Linked Provision 2 shall be deemed to be the relevant Reference Asset Price in respect of the Relevant Date.

3. Correction of prices

In the event that any price published on the Exchange on any date which is utilised for any calculation or determination in connection with the Securities is subsequently corrected and the correction is published by the Exchange by the earlier of:

- (a) one Settlement Cycle after the original publication; and
- (b) the second Business Day prior to the next date on which any relevant payment or delivery may have to be made by the Issuer or in respect of which any relevant determination in respect of the Securities may have to be made,

the Calculation Agent will determine the amount (if any) that is payable or deliverable as a result of that correction, and, to the extent necessary, will adjust any relevant terms of the Securities to account for such correction.

Upon making any such determination or adjustment, as applicable, to take into account any such correction, the Calculation Agent shall give notice as soon as practicable to the Holders stating the

determination or adjustment, as applicable, to any amount payable or deliverable under the Securities and/or any of the other relevant terms and giving brief details of the determination or adjustment, as applicable, provided that any failure to give such notice shall not affect the validity of such determination or adjustment, as applicable, or any action taken.

4. Consequences of Potential Adjustment Events

If the Calculation Agent determines that either (a) a Potential Adjustment Event has occurred in respect of a Share or (b) any adjustment has been made to the exercise, settlement, payment or any other terms of listed options or futures contracts on the relevant Shares traded on a Related Exchange or options exchange, as applicable, the Calculation Agent will determine whether such Potential Adjustment Event or adjustment to the relevant terms of listed options or futures contracts on the relevant Shares traded on a Related Exchange or options exchange, as applicable, has a diluting or concentrative effect on the theoretical value of the relevant Shares and, if so, the Calculation Agent will (i) make the corresponding adjustment(s), if any, to one or more of any variable relevant to the exercise, settlement, payment or other terms of the Securities as the Calculation Agent determines appropriate to account for that diluting or concentrative effect (provided that no adjustments will be made to account solely for changes in volatility, expected dividends, stock loan rate or liquidity relative to the relevant Share) and (ii) determine the effective date(s) of the adjustment(s). The Calculation Agent may (but need not) determine the appropriate adjustment(s) by reference to the adjustment(s) in respect of such Potential Adjustment Event made by the Related Exchange or an options exchange to options on the relevant Shares traded on such Related Exchange or options exchange, as relevant.

Upon making any such adjustment, the Calculation Agent shall give notice as soon as practicable to the Holders stating the adjustment to any amount payable under the Securities and/or any of the other relevant terms and giving brief details of the Potential Adjustment Event, provided that any failure to give such notice shall not affect the validity of the Potential Adjustment Event or any action taken.

If the Calculation Agent determines in its reasonable discretion that no adjustment it could make under this Share Linked Provision 4 (*Consequences of Potential Adjustment Events*) would produce a commercially reasonable result, it may direct the Issuer to redeem the Securities under Share Linked Provision 10 (*Early Redemption*) below.

5. Consequences of Extraordinary Events for a Share other than a Share that is a share of an Exchange Traded Fund

If the Calculation Agent determines that a Merger Event, a Tender Offer, a Nationalisation, an Insolvency or a Delisting has occurred in respect of a Share other than a Share that is a share of an Exchange Traded Fund then, on or after the relevant Merger Date, Tender Offer Date or Announcement Date, as the case may be, the Calculation Agent may in its reasonable discretion either:

- (a)
 - (i) make such adjustment to the exercise, settlement, payment or any other terms of the Securities as the Calculation Agent determines appropriate to account for the economic effect on the Securities of such Merger Event, Tender Offer, Nationalisation, Insolvency or Delisting, as the case may be (including adjustments to account for changes in volatility, expected dividends, stock loan rate or liquidity relevant to the Shares or to the Securities), which may, but need not, be determined by reference to the adjustments(s) made in respect of such Merger Event, Tender Offer, Nationalisation, Insolvency or Delisting, as the case may be, by an options exchange to options on the relevant Shares traded on such options exchange; and
 - (ii) determine the effective date of that adjustment (but, in the case of a Tender Offer, the Share Issuer and the Share will not change); or
- (b) if "**Share Substitution**" is specified as being applicable in the relevant Issue Specific Conditions, then the Calculation Agent may select a new underlying share (in respect of the relevant Merger Event, Tender Offer, Nationalisation, Insolvency or Delisting, as the case may be, the "**Replacement Share**"), which Replacement Share will be deemed to be a Share in place of the Share which has been replaced by the Calculation Agent following such Merger Event, Tender Offer, Nationalisation, Insolvency or Delisting, as the case may be (and the Share Issuer of the Replacement Share will replace the Share Issuer of the replaced Share),

and the Calculation Agent may make such adjustment to the exercise, settlement, payment or any other terms of the Securities as the Calculation Agent determines appropriate to account for the economic effect on the Securities of the Merger Event, Tender Offer, Nationalisation, Insolvency or Delisting, as the case may be, and/or the replacement of the replaced Share by the Replacement Share (including adjustments to account for changes in volatility, expected dividends, stock loan rate or liquidity relevant to the Shares or to the Securities). Any Replacement Share will, to the extent practicable, be selected from the same industry, have shares denominated in the same currency and have a similar market capitalisation to the relevant replaced Share; or

- (c) if the Calculation Agent determines that no adjustment that it could make under (a) or (if applicable) (b) will produce a commercially reasonable result, notify the Issuer and the Holders that the relevant consequence shall be the early redemption of the Securities, in which case on such date falling on or after the relevant Merger Date, Tender Offer Date or Announcement Date, as the case may be, as determined by the Calculation Agent, it may direct the Issuer to redeem the Securities under Share Linked Provision 10 (*Early Redemption*) below.

6. Consequences of Additional Disruption Events

If the Calculation Agent determines in its reasonable discretion that an Additional Disruption Event has occurred, then the Calculation Agent

- (a) shall make such adjustment to the exercise, settlement, payment or any other terms of the Securities as the Calculation Agent determines appropriate to account for the economic effect on the Securities of such Additional Disruption Events (including adjustments to account for changes in volatility, expected dividends, stock loan rate or liquidity relevant to the Shares or to the Securities); or
- (b) may direct the Issuer to redeem the Securities under Share Linked Provision 10 (*Early Redemption*) below.

7. Depositary Receipt Provisions

7.1 Partial Lookthrough Depositary Receipt Provisions

Where the relevant Issue Specific Conditions specify that the "Partial Lookthrough Depositary Receipt Provisions" shall apply to a Share, then the provisions set out below shall apply, and, in relation to such Share, the other provisions of the Share Linked Provisions shall be deemed to be amended and modified as set out in this Share Linked Provision 7.

- (a) The definition of "Potential Adjustment Event" shall be amended so that it reads as follows:

"Potential Adjustment Event" means any of the following:

- (i) a subdivision, consolidation or reclassification of relevant Shares and/or Underlying Shares (unless resulting in a Merger Event), or a free distribution or dividend of any such Shares and/or Underlying Shares to existing holders by way of bonus, capitalisation or similar issue;
- (ii) a distribution, issue or dividend to existing holders of the relevant Shares and/or Underlying Shares of (i) such Shares and/or Underlying Shares, or (ii) other share capital or securities granting the right to payment of dividends and/or the proceeds of liquidation of the Share Issuer or Underlying Shares Issuer, as appropriate, equally or proportionately with such payments to holders of such Shares and/or Underlying Shares, or (iii) share capital or other securities of another issuer acquired or owned (directly or indirectly) by the Share Issuer or Underlying Shares Issuer, as appropriate, as a result of a spin-off or other similar transaction, or (iv) any other type of securities, rights or warrants or other assets, in any case for payment (cash or other consideration) at less than the prevailing market price as determined by the Calculation Agent;

- (iii) in respect of a Share and/or Underlying Share, an amount per Share and/or Underlying Share is determined by the Calculation Agent to be an extraordinary dividend;
- (iv) a call by the Share Issuer or Underlying Shares Issuer, as appropriate, in respect of relevant Shares and/or Underlying Shares that are not fully paid;
- (v) a repurchase by the Share Issuer or Underlying Shares Issuer, as appropriate, or any of its subsidiaries of relevant Shares and/or Underlying Shares whether out of profits or capital and whether the consideration for such repurchase is cash, securities or otherwise;
- (vi) in respect of the Share Issuer or Underlying Shares Issuer, as appropriate, an event that results in any shareholder rights being distributed or becoming separated from shares of common stock or other shares of the capital stock of the Share Issuer or Underlying Shares Issuer, as appropriate, pursuant to a shareholder rights plan or arrangement directed against hostile takeovers that provides upon the occurrence of certain events for a distribution of preferred stock, warrants, debt instruments or stock rights at a price below their market value, as determined by the Calculation Agent, provided that any adjustment effected as a result of such an event shall be readjusted upon any redemption of such rights;
- (vii) any other event that may have a diluting or concentrative effect on the theoretical value of the relevant Shares and/or Underlying Shares; or
- (viii) the making of any amendment or supplement to the terms of the Deposit Agreement,

provided that an event under (i) to (vii) (inclusive) above in respect of the Underlying Shares shall not constitute a Potential Adjustment Event unless, in the determination of the Calculation Agent, such event has a diluting or concentrative effect on the theoretical value of the Shares."

- (b) If the Calculation Agent determines that:
 - (i) an event under (i) to (vii) (inclusive) of the definition of "Potential Adjustment Event" has occurred in respect of any Underlying Share, the Calculation Agent will determine whether such Potential Adjustment Event has a diluting or concentrative effect on the theoretical value of the relevant Shares; or
 - (ii) an event under (viii) of the definition of "Potential Adjustment Event" has occurred, the Calculation Agent will determine whether such Potential Adjustment Event has an economic effect on the Securities;

and, in each case, the Calculation Agent will make the corresponding adjustment(s), if any, to one or more of any variable relevant to the exercise, settlement, payment or other terms of the Securities as the Calculation Agent determines appropriate to account for (x) in respect of an event under (i) to (vii) (inclusive) of the definition of "Potential Adjustment Event", that diluting or concentrative effect, and (y) in respect of an event under (viii) of the definition of "Potential Adjustment Event", such economic effect on the Securities, as the case may be (provided that no adjustments will be made to account solely for changes in volatility, expected dividends, stock loan rate or liquidity relative to the relevant Share) following the Potential Adjustment Event. The Calculation Agent may (amongst other factors) have reference to any adjustment made by the Depository under the Deposit Agreement.

If the Calculation Agent determines that no adjustment that it could make will produce a commercially reasonable result, it may direct the Issuer to redeem the Securities under Share Linked Provision 10 (*Early Redemption*) below.

- (c) The definitions of "Merger Event" and "Tender Offer" shall be amended in accordance with the DR Amendment.
- (d) If the Calculation Agent determines that a Merger Event or Tender Offer has occurred in respect of an Underlying Share, then where the Calculation Agent makes an adjustment to the

Securities in connection with a Merger Event or Tender Offer, the Calculation Agent may (amongst other factors) have reference to any adjustment made by the Depository under the Deposit Agreement.

- (e) The definitions of Nationalisation, Insolvency and Delisting shall be amended in accordance with the DR Amendment.
- (f) Notwithstanding anything to the contrary in the definition of "Delisting", a Delisting shall not occur in respect of the Underlying Shares if the Underlying Shares are immediately re-listed, re-traded or re-quoted on an Acceptable Exchange regardless of the location of such Acceptable Exchange.
- (g) The definition of "Announcement Date" shall be amended so that it reads as follows:

"Announcement Date" means, in respect of (a) a Merger Event, the date of the first public announcement of a firm intention to engage in a transaction (whether or not subsequently amended) that leads to the Merger Event, (b) a Tender Offer, the date of the first public announcement of a firm intention to purchase or otherwise obtain the requisite number of voting shares (whether or not subsequently amended) that leads to the Tender Offer, (c) in the case of a Nationalisation, the date of the first public announcement to nationalise (whether or not subsequently amended) that leads to the Nationalisation, (d) in the case of an Insolvency, the date of the first public announcement of the institution of a proceeding or presentation of a petition or passing of a resolution (or other analogous procedure in any jurisdiction) that leads to the Insolvency, (e) in the case of a Delisting, the date of the first public announcement by the Exchange that the Shares will cease (or are intended to cease) to be listed, traded or publicly quoted in the manner described in the definition of Delisting, and (f) in the case of a termination of the Deposit Agreement, the date of the first public announcement by the Depository that the Deposit Agreement is (or will be) terminated. In respect of any event, if the announcement of such event is made after the actual closing time for the regular trading session on the relevant Exchange, without regard to any after hours or any other trading outside of such regular trading session hours, the Announcement Date shall be deemed to be the next following Scheduled Trading Day."
- (h) The definition of "Insolvency Filing" shall be amended in accordance with the DR Amendment.
- (i) For the purpose of determining whether a Delisting has occurred in respect of the Share, each reference to the "Exchange" shall be deemed to include a reference to the primary exchange or quotation system on which the Underlying Shares are traded, as determined by the Calculation Agent.

For the avoidance of doubt, where a provision is amended pursuant to this Share Linked Provision 7.1 in accordance with the DR Amendment, if the event described in such provision occurs in respect of the Underlying Shares or the Underlying Shares Issuer, then the consequence of such event shall be interpreted consistently with the DR Amendment and such event.

7.2 Full Lookthrough Depositary Receipt Provisions

Where the relevant Issue Specific Conditions specify that the "Full Lookthrough Depositary Receipt Provisions" shall apply to a Share, then the provisions set out below shall apply, and, in relation to such Share, the other provisions of these Share Linked Provisions shall be deemed to be amended and modified as set out in this Share Linked Provision 7.2:

- (a) The definition of "Potential Adjustment Event" shall be amended so that it reads as follows:

"Potential Adjustment Event" means any of the following:

- (i) a subdivision, consolidation or reclassification of relevant Shares and/or Underlying Shares (unless resulting in a Merger Event), or a free distribution or dividend of any such Shares and/or Underlying Shares to existing holders by way of bonus, capitalisation or similar issue;

- (ii) a distribution, issue or dividend to existing holders of the relevant Shares and/or Underlying Shares of (i) such Shares and/or Underlying Shares, or (ii) other share capital or securities granting the right to payment of dividends and/or the proceeds of liquidation of the Share Issuer or Underlying Shares Issuer, as appropriate, equally or proportionately with such payments to holders of such Shares and/or Underlying Shares, or (iii) share capital or other securities of another issuer acquired or owned (directly or indirectly) by the Share Issuer or Underlying Shares Issuer, as appropriate, as a result of a spin-off or other similar transaction, or (iv) any other type of securities, rights or warrants or other assets, in any case for payment (cash or other consideration) at less than the prevailing market price as determined by the Calculation Agent;
- (iii) in respect of a Share and/or Underlying Share, an amount per Share and/or Underlying Share is determined by the Calculation Agent to be an extraordinary dividend;
- (iv) a call by the Share Issuer or Underlying Shares Issuer, as appropriate, in respect of relevant Shares and/or Underlying Shares that are not fully paid;
- (v) a repurchase by the Share Issuer or Underlying Shares Issuer, as appropriate, or any of its subsidiaries of relevant Shares and/or Underlying Shares whether out of profits or capital and whether the consideration for such repurchase is cash, securities or otherwise;
- (vi) in respect of the Share Issuer or Underlying Shares Issuer, as appropriate, an event that results in any shareholder rights being distributed or becoming separated from shares of common stock or other shares of the capital stock of the Share Issuer or Underlying Shares Issuer, as appropriate, pursuant to a shareholder rights plan or arrangement directed against hostile takeovers that provides upon the occurrence of certain events for a distribution of preferred stock, warrants, debt instruments or stock rights at a price below their market value, as determined by the Calculation Agent, provided that any adjustment effected as a result of such an event shall be readjusted upon any redemption of such rights;
- (vii) any other event that may have a diluting or concentrative effect on the theoretical value of the relevant Shares and/or Underlying Shares; or
- (viii) the making of any amendment or supplement to the terms of the Deposit Agreement,

provided that an event under (i) to (vii) of the definition of "Potential Adjustment Event" in respect of the Underlying Shares shall not constitute a Potential Adjustment Event unless, in the determination of the Calculation Agent, such event has a diluting or concentrative effect on the theoretical value of the Shares.

- (b) If the Calculation Agent determines that:
 - (i) an event under (i) to (vii) (inclusive) of the definition of "Potential Adjustment Event" has occurred in respect of any Underlying Share, the Calculation Agent will determine whether such Potential Adjustment Event has a diluting or concentrative effect on the theoretical value of the relevant Shares; or
 - (ii) an event under (viii) of the definition of "Potential Adjustment Event" has occurred, the Calculation Agent will determine whether such Potential Adjustment Event has an economic effect on the Securities,

and, in each case, the Calculation Agent will make the corresponding adjustment(s), if any, to one or more of any variable relevant to the exercise, settlement, payment or other terms of the Securities as the Calculation Agent determines appropriate to account for (x) in respect of an event under (i) to (vii) (inclusive) of the definition of "Potential Adjustment Event", that diluting or concentrative effect, and (y) in respect of an event under (viii) of the definition of "Potential Adjustment Event", such economic effect on the Securities, as the case may be (provided that no adjustments will be made to account solely for changes in volatility, expected dividends, stock loan rate or liquidity relative to the relevant Share) following the

Potential Adjustment Event. The Calculation Agent may (amongst other factors) have reference to any adjustment made by the Depository under the Deposit Agreement.

If the Calculation Agent determines that no adjustment that it could make will produce a commercially reasonable result, it may direct the Issuer to redeem the Securities under Share Linked Provision 10 (*Early Redemption*) below.

- (c) The definitions of "Merger Event" and "Tender Offer" shall be amended in accordance with the DR Amendment.
- (d) If the Calculation Agent determines that a Merger Event or Tender Offer has occurred in respect of an Underlying Share, then where the Calculation Agent makes an adjustment to the Securities in connection with a Merger Event or Tender Offer, the Calculation Agent may (amongst other factors) have reference to any adjustment made by the Depository under the Deposit Agreement.
- (e) The definitions of Nationalisation, Insolvency and Delisting shall be amended in accordance with the DR Amendment.
- (f) The definition of "Announcement Date" shall be amended so that it reads as follows:

"Announcement Date" means, in respect of (a) a Merger Event, the date of the first public announcement of a firm intention to engage in a transaction (whether or not subsequently amended) that leads to the Merger Event, (b) a Tender Offer, the date of the first public announcement of a firm intention to purchase or otherwise obtain the requisite number of voting shares (whether or not subsequently amended) that leads to the Tender Offer, (c) in the case of a Nationalisation, the date of the first public announcement to nationalise (whether or not subsequently amended) that leads to the Nationalisation, (d) in the case of an Insolvency, the date of the first public announcement of the institution of a proceeding or presentation of a petition or passing of a resolution (or other analogous procedure in any jurisdiction) that leads to the Insolvency, (e) in the case of a Delisting, the date of the first public announcement by the Exchange that the Shares will cease (or are intended to cease) to be listed, traded or publicly quoted in the manner described in the definition of Delisting, and (f) in the case of a termination of the Deposit Agreement, the date of the first public announcement by the Depository that the Deposit Agreement is (or will be) terminated. In respect of any event, if the announcement of such event is made after the actual closing time for the regular trading session on the relevant Exchange, without regard to any after hours or any other trading outside of such regular trading session hours, the Announcement Date shall be deemed to be the next following Scheduled Trading Day.

- (g) The definition of "Insolvency Filing" shall be amended in accordance with the DR Amendment.
- (h) For the purpose of determining whether a Market Disruption Event has occurred in respect of the Share, the following amendments shall be deemed to be made to the Share Linked Provisions:
 - (i) each reference in the definition of "Exchange Business Day", "Scheduled Closing Time", "Scheduled Trading Day", "Trading Disruption", "Exchange Disruption", "Early Closure" and "Disrupted Day", to the "Exchange" shall be deemed to include a reference to the primary exchange or quotation system on which the Underlying Shares are traded, as determined by the Calculation Agent; and
 - (ii) the definition of "Market Disruption Event", "Trading Disruption" and "Exchange Disruption" shall be amended in accordance with the DR Amendment.
- (i) For the purpose of determining whether a Delisting has occurred in respect of the Share, each reference to the "Exchange" shall be deemed to include a reference to the primary exchange or quotation system on which the Underlying Shares are traded, as determined by the Calculation Agent.

For the avoidance of doubt, where a provision is amended pursuant to this Share Linked Provision 7.2 in accordance with the DR Amendment, if the event described in such provision occurs in respect of the Underlying Shares or the Underlying Shares Issuer, then the consequence of such event shall be interpreted consistently with the DR Amendment and such event.

8. Consequences of Extraordinary Events in respect of a Share that is a share of an Exchange Traded Fund and a Successor Index Event (ETF)

8.1 If the Calculation Agent determines that an Extraordinary Event has occurred in respect of a Share that is a share of an Exchange Traded Fund (the "**Affected Exchange Traded Fund**") then, on or after the Extraordinary Event Date, the following consequences shall apply in the following order:

- (a) firstly, the Calculation Agent may in its reasonable discretion make such adjustment to the exercise, settlement, payment or any other terms of the Securities as the Calculation Agent determines appropriate to account for the economic effect on the Securities of such Extraordinary Event (including adjustments to account for changes in volatility, expected dividends, stock loan rate or liquidity relevant to the Shares or to the Securities), which may, but need not, be determined by reference to the adjustments(s) made in respect of such Extraordinary Event by an options exchange to options on the relevant Shares traded on such options exchange; and determine the effective date of that adjustment (but, in the case of a Tender Offer, the Share Issuer and the Share will not change);
- (b) secondly, if the Calculation Agent determines, in its reasonable discretion, that no adjustment that it could make under paragraph (a) above will produce a commercially reasonable result, the Calculation Agent shall notify the Issuer and shall select an alternative exchange traded fund which is denominated in the same currency and, in the determination of the Calculation Agent, has a similar investment objective as the Affected Exchange Traded Fund to replace the Affected Exchange Traded Fund (such replacement exchange traded fund being the "**Replacement Exchange Traded Fund**" in respect of such Affected Exchange Traded Fund). If a Replacement Exchange Traded Fund is selected, that Replacement Exchange Traded Fund will be substituted for the Shares for all purposes of the Share Linked Provision and the Calculation Agent may determine in its reasonable discretion the appropriate date for the substitution of the Shares;
- (c) thirdly, if the Calculation Agent is unable to, or does not, for any reason, select a Replacement Exchange Traded Fund in respect of an Affected Exchange Traded Fund in accordance with paragraph (b) above, the Calculation Agent shall select (i) an index or a basket of indices (and the respective weighting of each index in such basket) which is denominated in the same currency as the Affected Exchange Traded Fund and has, in the determination of the Calculation Agent, similar economic characteristics as the Affected Exchange Traded Fund (such index shall be, in relation to such Affected Exchange Traded Fund, the "**Replacement Index**", and if a basket of indices is selected, such basket shall be referred to as the "**Replacement Index Basket**" and each index comprising the basket shall be referred to as a "component index"), and (ii) the date from which such Replacement Index or Replacement Index Basket, as the case may be, shall replace the Affected Exchange Traded Fund (in relation to such Affected Exchange Traded Fund, the "**Index Substitution Date**") (and, for the avoidance of doubt, any Index Substitution Date may be set by the Calculation Agent such that it falls prior to the event which resulted in the substitution, including, without limitation, on or prior to the Issue Date), and the Calculation Agent shall notify the Issuer. Following any such selection, the Replacement Index or Replacement Index Basket, as the case may be, shall replace the Affected Exchange Traded Fund on the Index Substitution Date and the Calculation Agent shall, in its reasonable discretion, make such adjustment(s), modification(s), substitution(s), calculation(s), determination(s) and/or cancellation(s) that it determines in its discretion to be appropriate, if any, to any variable, calculation methodology, valuation, settlement, payment terms, redemption amount, disruption mechanism or any other terms in respect of the Securities to account for such replacement (including, for the avoidance of doubt, the manner in which the Securities shall be redeemed, any amount payable on redemption and/or whether any asset is to be delivered (and, if so, the amount thereof) on redemption); or

- (d) fourthly, if the Calculation Agent is unable to, or does not, for any reason, select a Replacement Index or Replacement Index Basket, as the case may be, in respect of an Affected Exchange Traded Fund in accordance with paragraph (c) above, the Calculation Agent may direct the Issuer to redeem the Securities under Share Linked Provision 10 (*Early Redemption*) below.
- (e) If the relevant Issue Specific Conditions specify "**ETF – Successor Index Event Provision**" to be applicable, then if the Calculation Agent determines that a Successor Index Event (ETF) has occurred in respect of the Underlying Index for a Share that is a share of an Exchange Traded Fund then, on or after the date on which the Successor Index Event (ETF) occurs, the Calculation Agent may determine that the Underlying Index will be deemed to be Successor Underlying Index and the Calculation Agent may make such adjustment(s) that it determines to be appropriate, if any, to any variable, calculation methodology, valuation, settlement, payment terms or any other terms of the Securities to account for such successor, provided that, if the Calculation Agent does not make such determination, the relevant consequence shall be the early redemption of the Securities, in which case the Calculation Agent may direct the Issuer to redeem the Securities under Share Linked Provision 10 (*Early Redemption*) below.

9. Adjustments to Securities linked to Shares in European Currencies

In respect of any Securities linked to or relating to Shares originally quoted, listed and/or dealt as of the Issue Date in a currency of a member state of the European Union that has not adopted the single currency in accordance with the EC Treaty, if such Shares are at any time after the Issue Date quoted, listed and/or dealt exclusively in euro on the relevant Exchange or, where no Exchange is specified, the principal market on which those Shares are traded, then the Calculation Agent may make such adjustment to the exercise, settlement, payment or any other terms of the Securities as the Calculation Agent determines appropriate to preserve the economic terms of the Securities. The Calculation Agent will make any conversion necessary for purposes of any such adjustment based on the relevant official conversion rate or at an appropriate mid-market spot rate of exchange determined by the Calculation Agent to be prevailing as of the Valuation Time, as determined to be appropriate in the discretion of the Calculation Agent. No adjustments under this Share Linked Provision 9 will affect the currency denomination of any payment obligation arising out of the Securities.

10. Early Redemption

If following the occurrence of any of the relevant events listed in the provisions above, the Calculation Agent has directed the Issuer to redeem the Securities, the Issuer shall, within one month following the occurrence of the relevant event, give notice to the Holders in accordance with Section 16 of the General Conditions (*Notices*) designating the early payment date (the "**Early Payment Date**"). On the Early Payment Date, the Issuer shall redeem all, but not some only, of the Securities and it shall pay an amount equal to the Early Payment Amount (as defined under Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*)), provided that the words "(but ignoring the event which resulted in such early redemption)" shall be deleted) to each Holder in respect of each Security held by it. Payment of the Early Payment Amount will be made in such manner as shall be notified to the Holders in accordance with Section 16 of the General Conditions (*Notices*).

11. Definitions

The following terms and expressions shall have the following meanings in relation to Securities to which the Share Linked Provisions apply:

"**Additional Disruption Events**" means (a) a Change in Law, and (b) if Insolvency Filing is specified in the relevant Issue Specific Conditions to be applicable, an Insolvency Filing (each, an "**Additional Disruption Event**").

"**Announcement Date**" means, in respect of (a) a Merger Event, the date of the first public announcement of a firm intention to engage in a transaction (whether or not subsequently amended) that leads to the Merger Event, (b) a Tender Offer, the date of the first public announcement of a firm

intention to purchase or otherwise obtain the requisite number of voting shares (whether or not subsequently amended) that leads to the Tender Offer, (c) in the case of a Nationalisation, the date of the first public announcement to nationalise (whether or not subsequently amended) that leads to the Nationalisation, (d) in the case of an Insolvency, the date of the first public announcement of the institution of a proceeding or presentation of a petition or passing of a resolution (or other analogous procedure in any jurisdiction) that leads to the Insolvency, (e) in the case of a Delisting, the date of the first public announcement by the Exchange that the Shares will cease (or are intended to cease) to be listed, traded or publicly quoted in the manner described in the definition of Delisting, (f) in respect of a Share that is a share of an Exchange Traded Fund and a NAV Publication Suspension (ETF), the date of the first public announcement of such NAV Publication Suspension (ETF), or, if there is no such announcement, the date of the first occurrence of such NAV Publication Suspension (ETF), (g) in respect of a Share that is a share of an Exchange Traded Fund and an Underlying Index Cancellation (ETF), the date of the first public announcement of such Underlying Index Cancellation (ETF), or, if there is no such announcement, the date of the first occurrence of such Underlying Index Cancellation (ETF), and (h) in respect of a Share that is a share of an Exchange Traded Fund and an Underlying Index Modification (ETF), the date of the first public announcement of such Underlying Index Modification (ETF), or, if there is no such announcement, the date of the first occurrence of such Underlying Index Modification (ETF). In respect of any event, if the announcement of such event is made after the actual closing time for the regular trading session on the relevant Exchange, without regard to any after hours or any other trading outside of such regular trading session hours, the Announcement Date shall be deemed to be the next following Scheduled Trading Day.

"Calculation Hours" means, unless otherwise specified in the applicable Issue Specific Conditions, an intra-day period of time on a Scheduled Trading Day from the opening time of the relevant Exchange until its Scheduled Closing Time.

"Change in Law" means that, on or after the Issue Date of the Securities (a) due to the adoption of or any change in any applicable law or regulation (including, without limitation, any tax law), or (b) due to the promulgation of or any change in the interpretation by any court, tribunal or regulatory authority with competent jurisdiction of any applicable law or regulation (including any action taken by a taxing authority), it has, or it will, within the next 15 calendar days but on or prior to the Maturity Date, Redemption Date or Settlement Date, as is applicable to the Securities, become illegal for any of the Issuer and/or the Hedging Entity and/or any of their respective affiliates to hold, acquire or dispose of Shares.

"Clearance System" means, in respect of a Share, the principal domestic clearance system customarily used for settling trades in the relevant Share. If the Clearance System ceases to settle trades in such Share, the Clearance System will be determined by the Calculation Agent.

"Clearance System Business Day" means, in respect of a Clearance System and a Share, any day on which such Clearance System is (or, but for the occurrence of a Share Settlement Disruption Event, would have been) open for the acceptance and execution of settlement instructions.

"Delisting" means that, in respect of any relevant Shares the Exchange under its rules and for any reason (other than a Merger Event or Tender Offer) ceases (or announces an intention to cease) the admission to listing and/or trading and/or the public quotation of the Shares on the Exchange (for the avoidance of doubt, the indefinite suspension of admission to trading and/or listing and/or public quotation constitutes cessation for this purpose) and such Shares are not immediately re-listed, re-traded or re-quoted on an exchange or quotation system located in the same country as the Exchange (or, where the Exchange is within the European Union, in any member state of the European Union) provided that the Calculation Agent has determined that there is reasonably comparable liquidity on that exchange or quotation system relative to the liquidity that existed on the Exchange (such exchange or quotation system, an **"Acceptable Exchange"**). For the avoidance of doubt, an Acceptable Exchange shall exclude any listing service for shares traded over-the-counter.

"Deposit Agreement" means, in relation to the Shares, the agreements or other instruments constituting the Shares, as from time to time amended or supplemented in accordance with their terms.

"Depository" means, where the relevant Issue Specific Conditions specify that the "Partial Lookthrough Depository Receipt Provisions" or the "Full Lookthrough Depository Receipt Provisions" shall apply to a Share, the Share Issuer of the Shares.

"Disrupted Day" means any Scheduled Trading Day on which a relevant Exchange or any Related Exchange fails to open for trading during its regular trading session or on which a Market Disruption Event has occurred.

"DR Amendment" means, if the relevant Issue Specific Conditions specify that:

- (i) the "Partial Lookthrough Depositary Receipt Provisions" shall apply to a Share, in respect of the definitions of "Merger Event", "Tender Offer", "Nationalisation", "Insolvency", "Delisting" and "Insolvency Filing", that the following changes shall be made to such definition or provision: (a) all references to "Shares" shall be deleted and replaced with the words "Shares and/or the Underlying Shares"; and (b) all references to "Share Issuer" shall be deleted and replaced with the words "Share Issuer or Underlying Shares Issuer, as appropriate".
- (ii) the "Full Lookthrough Depositary Receipt Provisions" shall apply to a Share, in respect of the definitions of "Merger Event", "Tender Offer", "Nationalisation", "Insolvency", "Delisting", "Insolvency Filing", "Market Disruption Event", "Trading Disruption" and "Exchange Disruption" that the following changes shall be made to such definition or provision: (a) all references to "Shares" shall be deleted and replaced with the words "Shares and/or the Underlying Shares"; and (b) all references to "Share Issuer" shall be deleted and replaced with the words "Share Issuer or Underlying Shares Issuer, as appropriate".

"Early Closure" means, in respect of a Share, the closure on any Exchange Business Day of the relevant Exchange relating to such Share or any Related Exchange prior to its Scheduled Closing Time unless such earlier closing time is announced by such Exchange or Related Exchange, as the case may be, at least one hour prior to the earlier of (a) the actual closing time for the regular trading session on such Exchange or Related Exchange (as the case may be) on such Exchange Business Day and (b) the submission deadline for orders to be entered into such Exchange or Related Exchange system for execution as at the relevant Valuation Time on such Exchange Business Day.

"Early Payment Date" has the meaning given thereto in Share Linked Provision 10 (*Early Redemption*).

"Exchange" means, in respect of a Share, each exchange or quotation system specified as such in the relevant Issue Specific Conditions for such Share, any successor to such exchange or quotation system or any substitute exchange or quotation system to which trading in such Share has temporarily relocated (provided that the Calculation Agent has determined that there is comparable liquidity relative to such Share on such temporary substitute exchange or quotation system as on the original Exchange). If a Share is listed on two or more exchanges including the relevant Exchange, the Calculation Agent may decide that any other exchange on which the Share is listed at that time is the substitute exchange (provided that the Calculation Agent has determined that there is comparable liquidity relative to such Share on such exchange as on the original Exchange).

"Exchange Business Day" means, in respect of a Share, any Scheduled Trading Day for such Share on which each Exchange and each Related Exchange for such Share are open for trading during their respective regular trading sessions, notwithstanding any such Exchange or Related Exchange closing prior to its Scheduled Closing Time.

"Exchange Disruption" means, in respect of a Share, any event (other than an Early Closure) that disrupts or impairs (as determined by the Calculation Agent) the ability of market participants in general (a) to effect transactions in, or obtain market values for, the Shares on the Exchange, or (b) to effect transactions in, or obtain market values for, futures or options contracts relating to such Share on any relevant Related Exchange.

"Exchange Traded Fund" means an exchange traded fund specified as such in the relevant Issue Specific Conditions, and related expressions shall be construed accordingly.

"Extraordinary Events" means a Merger Event, a Tender Offer, a Nationalisation, an Insolvency or a Delisting and:

- (a) if the relevant Issue Specific Conditions specify that the "Partial Lookthrough Depositary Receipt Provisions" or the "Full Lookthrough Depositary Receipt Provisions" shall apply to a

Share, then "Extraordinary Events" also means the announcement by the Depository that the Deposit Agreement is (or will be) terminated;

- (b) in respect of a Share that is a share of an Exchange Traded Fund only, if the relevant Issue Specific Conditions specify:
 - (i) **"Extraordinary Events – NAV Publication Suspension (ETF)"** to be applicable, then "Extraordinary Events" also means a NAV Publication Suspension (ETF);
 - (ii) **"Extraordinary Events – Underlying Index Cancellation (ETF)"** to be applicable, then "Extraordinary Events" also means an Underlying Index Cancellation (ETF);
 - (iii) **"Extraordinary Events – Underlying Index Modification (ETF)"** to be applicable, then "Extraordinary Events" also means an Underlying Index Modification (ETF),

each, an **"Extraordinary Event"**.

"Extraordinary Event Date" means, in respect of a Share that is a share of an Exchange Traded Fund and an Extraordinary Event, the earliest to occur of the relevant Merger Date, Tender Offer Date or Announcement Date, as is applicable to such Extraordinary Event, as determined by the Calculation Agent.

"Fallback Valuation Date" means, in respect of any Share, the date(s) specified as such in the relevant Issue Specific Conditions for any date specified in the relevant Issue Specific Conditions on which the price of such Share is required to be determined, or, if **"Default Fallback Valuation Date"** is specified in the relevant Issue Specific Conditions, then the Fallback Valuation Date for any date on which the price of such Share is required to be determined shall be the second Business Day prior to the next following date upon which any payment or delivery of assets may have to be made by the Issuer by reference to the price of such Share on such day.

"Hedging Entity" has the meaning given to it in Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*).

"Insolvency" means that by reason of the voluntary or involuntary liquidation, bankruptcy, insolvency, dissolution or winding-up of or any analogous proceeding affecting a Share Issuer (a) all the Shares of that Share Issuer are required to be transferred to a trustee, liquidator or other similar official or (b) holders of the Shares of that Share Issuer become legally prohibited from transferring them.

"Insolvency Filing" means that (a) the Share Issuer (i) institutes or has instituted against it by a regulator, supervisor or any similar official with primary insolvency, rehabilitative or regulatory jurisdiction over it in the jurisdiction of its incorporation or organisation or the jurisdiction of its head or home office, or (ii) consents to a proceeding seeking a judgment of insolvency or bankruptcy or any other relief under any bankruptcy or insolvency law or other similar law affecting creditors' rights, or (b) a petition is presented for its winding-up or liquidation by it or such regulator, supervisor or similar official or it consents to such a petition, **provided that** proceedings instituted or petitions presented by creditors and not consented to by the Share Issuer shall not be deemed an Insolvency Filing.

"Market Disruption Event" means, in respect of a Share, the occurrence or existence of (a) a Trading Disruption, (b) an Exchange Disruption, which in either case the Calculation Agent determines is material, at any time during the one-hour period that ends at the relevant Valuation Time, (c) an Early Closure, (d) any change in national or international financial, political or economic conditions or currency exchange rates or exchange controls, the effect of which is, in the determination of the Calculation Agent, so material and adverse as to make it impracticable or inadvisable to proceed with the calculation or determination of any amount payable or deliverable under the terms and conditions of the Securities or (e) in respect of a Share that is a share of an Exchange Traded Fund only and, if the relevant Issue Specific Conditions specify "Market Disruption Event - NAV Temporary Publication Suspension (ETF)" to be applicable, then "Market Disruption Event" also means a NAV Temporary Publication Suspension (ETF).

"Maximum Days of Disruption" means eight Scheduled Trading Days or such other number of Scheduled Trading Days specified in the relevant Issue Specific Conditions.

"Merger Date" means the closing date of a Merger Event or, where a closing date cannot be determined under the local law applicable to such Merger Event, such other date as determined by the Calculation Agent.

"Merger Event" means, in respect of any relevant Shares, any (a) reclassification or change of such Shares that results in a transfer of or an irrevocable commitment to transfer all of such Shares outstanding to another entity or person, (b) consolidation, amalgamation, merger or binding share exchange of the Share Issuer with or into another entity or person (other than a consolidation, amalgamation, merger or binding share exchange in which such Share Issuer is the continuing entity and which does not result in a reclassification or change of all of such Shares outstanding), (c) takeover offer, tender offer, exchange offer, solicitation, proposal or other event by any entity or person to purchase or otherwise obtain 100 per cent. of the outstanding Shares of the Share Issuer that results in a transfer of or an irrevocable commitment to transfer all such Shares (other than such Shares owned or controlled by such other entity or person), or (d) consolidation, amalgamation, merger or binding share exchange of the Share Issuer or its subsidiaries with or into another entity in which the Share Issuer is the continuing entity and which does not result in a reclassification or change of all such Shares outstanding but results in the outstanding Shares (other than Shares owned or controlled by such other entity) immediately prior to such event collectively representing less than 50 per cent. of the outstanding Shares immediately following such event (a **"Reverse Merger"**), in each case if the Merger Date is on or before the final Reference Date.

"Nationalisation" means that all the Shares or all or substantially all the assets of a Share Issuer are nationalised, expropriated or are otherwise required to be transferred to any governmental agency, authority, entity or instrumentality thereof.

"NAV Publication Suspension (ETF)" means that, in the determination of the Calculation Agent, the management company of the Exchange Traded Fund, or any other entity who has been delegated the responsibility to publish the net asset value of each Share, has failed to or will fail to, or has not published or will not publish, the net asset value of each Share, and such failure to publish or non-publication will, in the determination of the Calculation Agent, in its reasonable discretion, have a material effect on the Securities and will be for more than a short period of time and/or will not be of a temporary nature.

"NAV Temporary Publication Suspension (ETF) " means that, in the determination of the Calculation Agent, the management company of the Exchange Traded Fund, or any other entity who has been delegated the responsibility to publish the net asset value of each Share, fails to or does not publish, the net asset value of each Share, and such failure to publish or non-publication will, in the determination of the Calculation Agent, in its reasonable discretion, have a material effect on the Securities.

"Potential Adjustment Event" means any of the following:

- (a) a subdivision, consolidation or reclassification of relevant Shares (unless resulting in a Merger Event), or a free distribution or dividend of any such Shares to existing holders by way of bonus, capitalisation or similar issue;
- (b) a distribution, issue or dividend to existing holders of the relevant Shares of (i) such Shares, or (ii) other share capital or securities granting the right to payment of dividends and/or the proceeds of liquidation of the Share Issuer equally or proportionately with such payments to holders of such Shares, or (iii) share capital or other securities of another issuer acquired or owned (directly or indirectly) by the Share Issuer as a result of a spin-off or other similar transaction, or (iv) any other type of securities, rights or warrants or other assets, in any case for payment (cash or other consideration) at less than the prevailing market price as determined by the Calculation Agent;
- (c) in respect of a Share, an amount per Share is determined by the Calculation Agent to be an extraordinary dividend;
- (d) a call by the Share Issuer in respect of relevant Shares that are not fully paid;

- (e) a repurchase by the Share Issuer or any of its subsidiaries of relevant Shares whether out of profits or capital and whether the consideration for such repurchase is cash, securities or otherwise;
- (f) in respect of the Share Issuer, an event that results in any shareholder rights being distributed or becoming separated from shares of common stock or other shares of the capital stock of the Share Issuer pursuant to a shareholder rights plan or arrangement directed against hostile takeovers that provides upon the occurrence of certain events for a distribution of preferred stock, warrants, debt instruments or stock rights at a price below their market value, as determined by the Calculation Agent, provided that any adjustment effected as a result of such an event shall be readjusted upon any redemption of such rights; or
- (g) any other event that may have a diluting or concentrative effect on the theoretical value of the relevant Shares.

"Reference Asset" means the reference asset specified as such in the relevant Issue Specific Conditions.

"Reference Asset Price" means, in respect of a Scheduled Trading Day, the price of the Share as specified in the relevant Issue Specific Conditions.

"Reference Date" means the Valuation Date and/or any other date specified as such in the relevant Issue Specific Conditions, or if such date is not a Scheduled Trading Day in respect of a Share, the next following Scheduled Trading Day.

"Related Exchange" means, in respect of any Share, each exchange or quotation system, if any, specified as such in the relevant Issue Specific Conditions, any successor to such exchange or quotation system or any substitute exchange or quotation system to which trading in futures or options contracts relating to the Share has temporarily relocated (provided that the Calculation Agent has determined that there is comparable liquidity relative to the futures or options contracts relating to the Share on such temporary substitute exchange or quotation system as on the original Related Exchange), provided, however, that where "All Exchanges" is specified as the Related Exchange, "Related Exchange" shall mean each exchange or quotation system (as determined by the Calculation Agent) where trading has a material effect (as determined by the Calculation Agent) on the overall market for futures or options contracts relating to the Share or, in any such case, any transferee or successor exchange of such exchange or quotation system (provided that the Calculation Agent has determined that there is comparable liquidity relative to the futures or options contracts relating to such Share on such temporary substitute exchange or quotation system as on the original Related Exchange).

"Scheduled Closing Time" means, in respect of a Share and in respect of an Exchange or Related Exchange and a Scheduled Trading Day, the scheduled weekday closing time of such Exchange or Related Exchange on such Scheduled Trading Day, without regard to after hours or any other trading outside of the regular trading session hours for such Exchange or Related Exchange.

"Scheduled Reference Date" means any original date that, but for the occurrence of an event causing a Disrupted Day, would have been the Reference Date.

"Scheduled Trading Day" means, in respect of a Share, any day on which each Exchange and each Related Exchange for the Share are scheduled to be open for trading for their respective regular trading sessions.

"Settlement Cycle" means the period of Clearance System Business Days following a trade in the Share on the Exchange in which settlement will customarily occur according to the rules of such Exchange.

"Share" means, subject to adjustment in accordance with the Share Linked Provisions, the share specified as such in the relevant Issue Specific Conditions and related expressions shall be construed accordingly, and, if the relevant Issue Specific Conditions specify that a Share is a "Share of Exchange Traded Fund", the Share specified as such in the relevant Issue Specific Conditions shall be a share of an Exchange Traded Fund.

"Share Issuer" means, in respect of a Share, the issuer of such Share.

"Share Settlement Disruption Event" means, in respect of a Share, an event that the Calculation Agent determines is beyond the control of the Issuer and/or its affiliates as a result of which the relevant Clearance System cannot clear the transfer of such Share.

"Successor Index Event (ETF)" means, in respect of a Share that is a share of an Exchange Traded Fund, the Underlying Index for such Exchange Traded Fund is (i) not calculated and announced by the Index Sponsor but is calculated and announced by a successor sponsor acceptable to the Calculation Agent, or (ii) replaced by a successor index (a **"Successor Underlying Index"**) using, in the determination of the Calculation Agent, the same or a substantially similar formula for and method of calculation as used in the calculation of such Underlying Index.

"Tender Offer" means a takeover offer, tender offer, exchange offer, solicitation, proposal or other event by any entity or person that results in such entity or person purchasing, or otherwise obtaining or having the right to obtain, by conversion or other means, greater than ten per cent. and less than 100 per cent. of the outstanding voting shares of the Share Issuer, as determined by the Calculation Agent, based upon the making of filings with governmental or self-regulatory agencies or such other information as the Calculation Agent deems relevant.

"Tender Offer Date" means, in respect of a Tender Offer, the date on which voting shares in the amount of the applicable percentage threshold are actually purchased or otherwise obtained (as determined by the Calculation Agent).

"Trading Disruption" means, in respect of a Share, any suspension of, or limitation imposed on, trading by the relevant Exchange or Related Exchange or otherwise, and whether by reason of movements in price exceeding limits permitted by the relevant Exchange or Related Exchange or otherwise, (a) relating to the Share on the relevant Exchange or (b) in futures or options contracts relating to the Share on any relevant Related Exchange.

"Underlying Index" means, in respect of a Share that is a share of an Exchange Traded Fund, the index underlying such Exchange Traded Fund, as determined by the Calculation Agent.

"Underlying Hedge Transactions" has the meaning given to it in Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*).

"Underlying Index Cancellation (ETF)" means, in respect of a Share that is a share of an Exchange Traded Fund, the Underlying Index for such Exchange Traded Fund is permanently cancelled and no Successor Underlying Index (as defined in the definition of "Successor Index Event (ETF)" above) exists as at the date of such cancellation, as determined by the Calculation Agent.

"Underlying Index Modification (ETF)" means, in respect of a Share that is a share of an Exchange Traded Fund, and the Underlying Index for such Exchange Traded Fund, the relevant Underlying Index sponsor making or announcing that it will make a material change in the formula for, or the method of, calculating the relevant Underlying Index, or in any other way materially modifies such Underlying Index, as determined by the Calculation Agent.

"Underlying Shares" means the shares or other securities which are the subject of the Deposit Agreement.

"Underlying Shares Issuer" means the issuer of the Underlying Shares.

"Valuation Time" means the time in the place specified in the relevant Issue Specific Conditions or, if no such time is specified, the Scheduled Closing Time on the relevant Exchange on the relevant day in relation to each Share to be valued. If the relevant Exchange closes prior to its Scheduled Closing Time and the specified Valuation Time is after the actual closing time for its regular trading session, then the Valuation Time shall be such actual closing time.

B. INDEX LINKED PROVISIONS

These Index Linked Provisions shall apply to Securities for which the relevant Issue Specific Conditions specify that the Index Linked Provisions are applicable.

1. Disrupted Days

1.1 Consequences of Disrupted Days

If the Calculation Agent determines that any Reference Date is a Disrupted Day, then the Reference Date for such Index shall be the first succeeding Scheduled Trading Day in respect of the Index that the Calculation Agent determines is not a Disrupted Day in respect of such Index, unless the Calculation Agent determines that each of the consecutive Scheduled Trading Days in respect of the Index equal in number to the Maximum Days of Disruption in respect of such Index immediately following the Scheduled Reference Date is a Disrupted Day for such Index. In that case:

- (a) the last consecutive Scheduled Trading Day shall be deemed to be the Reference Date for such Index, notwithstanding the fact that such day is a Disrupted Day for such Index; and
- (b) the Calculation Agent shall, in its reasonable discretion, determine the level of the Index (as of the Valuation Time) in respect of that last consecutive Scheduled Trading Day in accordance with Index Linked Provision 1.2 (*Formula for and method of calculating an Index level after the Maximum Days of Disruption*), and such value as determined by the Calculation Agent pursuant to this paragraph (b) shall be deemed to be the Reference Asset Price in respect of the relevant Reference Date.

1.2 Formula for and method of calculating an Index level after the Maximum Days of Disruption

The Calculation Agent shall determine the level of the Index as of the relevant Valuation Time on or in respect of the relevant last consecutive Scheduled Trading Day, pursuant to Index Linked Provisions 1.1(b) in accordance with the formula for and method of calculating the Index last in effect prior to the occurrence of the relevant first Disrupted Day, using the Exchange traded or quoted price as of the Valuation Time on the last consecutive Scheduled Trading Day of each Component comprised in the Index (or, if an event giving rise to a Share Disrupted Day has occurred in respect of any relevant Component that is a Share (or an analogous event has occurred in respect of any relevant Component that is not a Share) on such last consecutive Scheduled Trading Day for any relevant Component, or such last consecutive Scheduled Trading Day is not a Scheduled Trading Day for any relevant Component, as determined in its reasonable discretion by the Calculation Agent, the value for the relevant Component as of the Valuation Time on the last consecutive Scheduled Trading Day).

2. Fallback Valuation Date

Notwithstanding any other terms of the Index Linked Provisions, if a Fallback Valuation Date is specified in the relevant Issue Specific Conditions to be applicable to any Reference Date (any such date being, a "**Relevant Date**"), and if:

- (a) following adjustment of the original date on which such Relevant Date is scheduled to fall pursuant to adjustment of the Relevant Date pursuant to either or both of (i) Index Linked Provision 1 (*Consequences of Disrupted Days*) or (ii) Index Linked Provision 10 (*Definitions*), the Relevant Date in respect of an Index would otherwise fall after the Fallback Valuation Date in respect of the Index; or
- (b) the Maximum Days of Disruption for the Relevant Date is specified to be "Zero (0)" or "None",

then the Fallback Valuation Date shall be deemed to be the Relevant Date for the Index. If the Fallback Valuation Date is not a Scheduled Trading Day or is a Disrupted Day relating to that Index, as the case may be, then the Calculation Agent shall determine the Reference Asset Price as of the Valuation Time on the Fallback Valuation Date in accordance with the formula for and method of calculating the Index last in effect prior to the occurrence of the first day that is not a Scheduled Trading Day or is a Disrupted Day, using the Exchange traded or quoted price as of the Valuation Time on the Fallback

Valuation Date of each Component comprised in the Index (or, if an event giving rise to a Share Disrupted Day has occurred in respect of any relevant Component that is a Share (or an analogous event has occurred in respect of any relevant Component that is not a Share) on such Fallback Valuation Date or such Fallback Valuation Date is not a Scheduled Trading Day for any relevant Component, as determined in its reasonable discretion by the Calculation Agent the value for the relevant Component as of the relevant Valuation Time on the Fallback Valuation Date), and such determination by the Calculation Agent pursuant to this Index Linked Provision 2 shall be deemed to be the relevant Reference Asset Price in respect of the Relevant Date.

3. **Correction of Index levels**

In the event that any relevant level of an Index published by the Index Sponsor on any date which is utilised for any calculation or determination in connection with the Securities is subsequently corrected and the correction is published by the Index Sponsor:

- (a) By the second Business Day prior to the next date on which any relevant payment may have to be made by the Issuer or in respect of which any relevant determination in respect of the Securities may have to be made; or
- (b) if earlier, one Settlement Cycle after the original publication,

then the Calculation Agent will determine the amount (if any) that is payable as a result of that correction, and, to the extent necessary, will adjust any relevant terms of the Securities to account for such correction.

Upon making any such determination or adjustment, as applicable, to account for such correction, the Calculation Agent shall give notice as soon as practicable to the Holders stating the determination or adjustment, as applicable, to any amount payable under the Securities and/or any of the other relevant terms and giving brief details of the determination or adjustment, as applicable, provided that any failure to give such notice shall not affect the validity of the determination or adjustment, as applicable, such correction or any action taken.

4. **Consequences of Successors and Index Adjustment Events**

4.1 **Consequences of a Successor Index Sponsor or a Successor Index**

If an Index is (i) not calculated and announced by the Index Sponsor but is calculated and announced by a successor sponsor acceptable to the Calculation Agent (a "**Successor Index Sponsor**") or (ii) replaced by a successor index using, in the determination of the Calculation Agent, the same or a substantially similar formula for and method of calculation as used in the calculation of such Index, then in each case such index (the "**Successor Index**") will be deemed to be the Index.

The Calculation Agent may make such adjustment(s) that it determines to be appropriate, if any, to any variable, calculation methodology, valuation, settlement, payment terms or any other terms of the Securities to account for such successor.

If any of the events set out in (i) or (ii) above has occurred, but the Calculation Agent has not identified, acting in its reasonable discretion, a Successor Index Sponsor or Successor Index, as applicable, then the occurrence of any such event shall constitute either an Index Modification or Index Cancellation, as applicable, and the provisions of Index Linked Provision 4.2 (*Consequences of an Index Adjustment Event*) shall apply accordingly, *mutatis mutandis*.

Upon making any such adjustment, the Calculation Agent shall give notice as soon as practicable to the Holders stating the adjustment to any variable, calculation methodology, valuation, settlement, payment terms or any other terms of the Securities and/or any of the other relevant terms and giving brief details of the adjustment provided that any failure to give such notice shall not affect the validity of the adjustment or any action taken.

4.2 **Consequences of an Index Adjustment Event**

If an Index Adjustment Event has occurred, as determined by the Calculation Agent, the Calculation Agent will determine in its reasonable discretion if such Index Adjustment Event has a material effect

on the Securities and, if so, shall calculate the relevant Reference Asset Price of the Index using, in lieu of a published level for such Index, the level for such Index as at or in respect of the relevant Reference Date or any other relevant date as determined by the Calculation Agent, as the case may be, as, in its reasonable discretion, the Calculation Agent so determines in accordance with the formula for and method of calculating such Index last in effect prior to the relevant Index Adjustment Event, but using only those Components that comprised such Index immediately prior to such Index Adjustment Event.

If the Calculation Agent determines that it is not reasonably practicable (taking into account the costs involved) to calculate or continue to calculate the Index pursuant to the preceding paragraph, the Calculation Agent may rebase the Securities against another index or basket of indices, as applicable, determined by the Calculation Agent to be comparable to the relevant Index, and, following such rebasing, the Calculation Agent will make such adjustment(s) that it determines to be appropriate, if any, to any variable, calculation methodology, valuation, settlement, payment terms or any other terms of the Securities to account for such rebasing.

If the Calculation Agent determines that there is not such an index or basket of indices comparable to the relevant Index, and/or that application of the preceding paragraphs would not achieve a commercially reasonable result, the Calculation Agent may direct the Issuer to redeem the Securities in accordance with Index Linked Provision 8 (*Early Redemption*) below.

On making any such adjustment(s) or determination(s), the Calculation Agent shall give notice as soon as practicable to the Holders stating the adjustment to any amount payable under the Securities, the determination and/or any of the other relevant terms and giving brief details of the Index Adjustment Event, provided that any failure to give such notice shall not affect the validity of the Index Adjustment Event or any action taken.

In the case of Factor Indices as Reference Asset it should be noted that the relevant methodology of the Factor Index may provide for a so-called "Reverse Split", i.e. if the level of the Factor Index falls below a certain threshold, the Index Sponsor will adjust the level of the Factor Index by applying a specific factor. If the Calculation Agent determines that such a Reverse Split has taken place, the Calculation Agent is entitled to determine appropriate adjustments to the Securities in its reasonable discretion (in particular, by adjusting the Ratio of the Securities) in order to take into account the impact of the specific factor to the level of the Factor Index. Such adjustment shall be notified to the Holders in accordance with Section 16 of the General Conditions (*Notices*).

5. Consequences of Additional Disruption Events

If the Calculation Agent determines that an Additional Disruption Event has occurred, the Calculation Agent may, in its reasonable discretion:

- (a) determine to make such adjustment to the exercise, settlement, payment or any other terms of the Securities as the Calculation Agent determines appropriate to account for such Additional Disruption Event; and/or
- (b) may direct the Issuer to redeem the Securities under Index Linked Provision 8 (*Early Redemption*) below.

6. Index Disclaimer

The Securities are not sponsored, endorsed, sold, or promoted by the Index or the Index Sponsor and no Index Sponsor makes any representation whatsoever, whether express or implied, either as to the results to be obtained from the use of the Index and/or the levels at which the Index stands at any particular time on any particular date or otherwise. No Index or Index Sponsor shall be liable (whether in negligence or otherwise) to any person for any error in the Index and the Index Sponsor is under no obligation to advise any person of any error therein. No Index Sponsor is making any representation whatsoever, whether express or implied, as to the advisability of purchasing or assuming any risk in connection with the Securities. The Issuer shall have no liability to the Holders for any act or failure to act by the Index Sponsor in connection with the calculation, adjustment, or maintenance of the Index. Except as may be disclosed prior to the Issue Date and specified in the relevant Issue Specific Conditions, none of the Issuer, the Calculation Agent or any of their respective affiliates has any affiliation with or control over the Index or Index Sponsor or any control over the computation, composition, or dissemination of the Index. Although the Calculation Agent will obtain information

concerning the Index from publicly available sources it believes reliable, it will not independently verify this information. Accordingly, no representation, warranty, or undertaking (express or implied) is made and no responsibility is accepted by the Issuer, its affiliates, or the Calculation Agent as to the accuracy, completeness, and timeliness of information concerning the Index. In addition, no representation or warranty of any type, as to condition, satisfactory quality, performance or fitness for purpose are given, or duty or liability is assumed, by the Issuer, its affiliates, or the Calculation Agent in respect of the Index or any data included in or omissions from the Index, or the use of the Index in connection with the Securities and all those representations and warranties are excluded, save to the extent that such exclusion is prohibited by law.

7. Index-Linked Derivatives Contract Provisions

Subject as provided in the relevant Issue Specific Conditions, if the relevant Issue Specific Conditions specify that the "Index-Linked Derivatives Contract Provisions" shall be applicable, the following terms shall apply, and Index Linked Provision 1 (*Consequences of Disrupted Days*) shall not apply, save in relation to determining the Final Index Level, if applicable:

7.1 Modifications or Early Redemption pursuant to the occurrence of an Index-Linked Derivatives Contract Adjustment Event

If the relevant Issue Specific Conditions specify that the "Index-Linked Derivatives Contract Provisions" shall be applicable then, following the determination by the Calculation Agent that an Index-Linked Derivatives Contract Adjustment Event has occurred, the Calculation Agent may, in its reasonable discretion,

- (a) determine the appropriate adjustments, if any, to be made to any one or more of the terms of the Securities, including without limitation, any variable or term relevant to the settlement or payment under the Securities, as the Calculation Agent determines appropriate to account for such Index-Linked Derivatives Contract Adjustment Event, and determine the effective date of that adjustment, or
- (b) if the Calculation Agent determines in its reasonable discretion that no adjustment it could make under this paragraph Index Linked Provision 7.1 would produce a commercially reasonable result, it may direct the Issuer to redeem Securities under Index Linked Provision 8 (*Early Redemption*) below.

7.2 Corrections to price of Index-Linked Derivatives Contract

If the relevant Issue Specific Conditions specify that the "Index-Linked Derivatives Contract Provisions" shall be applicable then, in the event that the relevant price of an Index-Linked Derivatives Contract which is utilised for any calculation or determination in relation to such Index-Linked Derivatives Contract is subsequently corrected and the correction is published by the Derivatives Exchange no later than the second Business Day prior to the Maturity Date, the Calculation Agent will make any determination or determine the amount that is payable or deliverable as a result of that correction, and, to the extent necessary, will adjust any relevant terms of the Securities to account for such correction.

8. Early Redemption

If following the occurrence of any of the relevant events listed in the provisions above, the Calculation Agent has directed the Issuer to redeem the Securities, the Issuer shall, within one month following the occurrence of the relevant event, give notice to the Holders in accordance with Section 16 of the General Conditions (*Notices*) designating the early payment date (the "**Early Payment Date**"). On the Early Payment Date, the Issuer shall redeem all, but not some only, of the Securities and it shall pay an amount equal to the Early Payment Amount (as defined under Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*)), provided that the words "(but ignoring the event which resulted in such early redemption)" shall be deleted) to each Holder in respect of each Security held by it. Payment of the Early Payment Amount will be made in such manner as shall be notified to the Holders in accordance with Section 16 of the General Conditions (*Notices*).

9. Non-compliant Fallbacks

Notwithstanding anything else in these Index Linked Provisions, if, in respect of the Securities, it (a) is or would be unlawful at any time under any applicable law or regulation or (b) would contravene any applicable licensing requirements, in each case, for the Calculation Agent to determine the level of the Index or make any other determination in respect of the Securities which it would otherwise be obliged to do so under these Index Linked Provisions (or it would be unlawful or would contravene those licensing requirements were a determination to be made at such time), then (where no other applicable provision in these Index Linked Provisions results in such determination being made) the Calculation Agent may determine that the Securities shall be early redeemed. The Issuer shall give notice to the Holders in accordance with Section 16 of the General Conditions (*Notices*) designating the early payment date (the "**Early Payment Date**"). In the case of an early redemption the Issuer will cause to be paid to each Holder in respect of each Security held by it an amount equal to the Early Payment Amount (as defined under Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*)), provided that the words "(but ignoring the event which resulted in such early redemption)" shall be deleted). Payment of the Early Payment Amount will be made in such manner as shall be notified to the Holders in accordance with Section 16 of the General Conditions (*Notices*).

10. Definitions

The following terms and expressions shall have the following meanings in relation to Securities to which the Index Linked Provisions apply:

"**Additional Disruption Event**" means a Change in Law.

"**Calculation Hours**" means, unless otherwise specified in the applicable Issue Specific Conditions, the period on a Scheduled Trading Day during which the Index is calculated by the Index Sponsor.

"**Change in Law**" means that, on or after the Issue Date of the Securities (a) due to the adoption of or any change in any applicable law or regulation (including, without limitation, any tax law), or (b) due to the promulgation of or any change in the interpretation by any court, tribunal or regulatory authority with competent jurisdiction of any applicable law or regulation (including any action taken by a taxing authority), it has, or it will, within the next 15 calendar days but on or prior to the Maturity Date, become illegal for any of the Issuer and/or the Hedging Entity and/or any of their respective affiliates to hold, acquire or dispose of Components.

"**Component**" means, in respect of an Index, any share, security, commodity, futures contract, exchange rate, rate, index or other component included in such Index, as determined by the Calculation Agent.

"**Component Clearance System**" means, in respect of a Component of an Index, the principal domestic clearance system customarily used for settling trades in the relevant Component. If the Clearance System ceases to settle trades in such Component, the Clearance System will be determined by the Calculation Agent.

"**Component Clearance System Business Day**" means, in respect of a Component Clearance System, any day on which such Component Clearance System is (or, but for the occurrence of an Index Settlement Disruption Event, would have been) open for the acceptance and execution of settlement instructions.

"**Derivatives Exchange**" means each exchange or quotation system specified as such in the relevant Issue Specific Conditions in respect of the Index-Linked Derivatives Contract, any successor to such exchange or quotation system or any substitute exchange or quotation system to which trading in the Index-Linked Derivatives Contract has temporarily relocated (provided that the Calculation Agent has determined that there is comparable liquidity relative to the Index-Linked Derivatives Contract on such temporary substitute exchange or quotation system as on the original Derivatives Exchange).

"**Disrupted Day**" means:

- (a) for any Unitary Index, any Scheduled Trading Day on which (i) a relevant Exchange or any Related Exchange fails to open for trading during its regular trading session or (ii) a Market Disruption Event has occurred;
- (b) for any Multi-Exchange Index, any Scheduled Trading Day on which (i) the Index Sponsor fails to publish the level of the Index (provided that the Calculation Agent may, in its reasonable discretion, determine that such event instead results in the occurrence of an Index Disruption), (ii) any Related Exchange fails to open for trading during its regular trading session or (iii) a Market Disruption Event has occurred; or
- (c) for any Factor Index, any Scheduled Trading Day on which a Market Disruption Event has occurred (provided that the Calculation Agent may determine that the occurrence of such event instead results in the occurrence of an Index Disruption).

"Early Closure" means:

- (a) for any Unitary Index, the closure on any Exchange Business Day of any relevant Exchange relating to Components that comprise 20 per cent. or more of the level of the relevant Index or any Related Exchange prior to its Scheduled Closing Time, unless such earlier closing time is announced by such Exchange or Related Exchange at least one hour prior to the earlier of (i) the actual closing time for the regular trading session on such Exchange or Related Exchange on such Exchange Business Day and (ii) the submission deadline for orders to be entered into the Exchange or Related Exchange system for execution at the Valuation Time on such Exchange Business Day; and
- (b) for any Multi-Exchange Index, the closure on any Exchange Business Day of any relevant Exchange relating to any Component or any Related Exchange prior to its Scheduled Closing Time, unless such earlier closing time is announced by such Exchange or Related Exchange at least one hour prior to the earlier of (i) the actual closing time for the regular trading session on such Exchange or Related Exchange on such Exchange Business Day and (ii) the submission deadline for orders to be entered into the Exchange or Related Exchange system for execution at the relevant Valuation Time on such Exchange Business Day.

"Early Payment Date" has the meaning given thereto in Index Linked Provision 8 (*Early Redemption*).

"Exchange" means:

- (a) for any Unitary Index, each exchange or quotation system specified as such in the relevant Issue Specific Conditions for the Index, any successor to such exchange or quotation system or any substitute exchange or quotation system to which trading in the Components underlying the Index has temporarily relocated (provided that the Calculation Agent has determined that there is comparable liquidity relative to the Components underlying the Index on such temporary substitute exchange or quotation system as on the original Exchange);
- (b) for any Multi-Exchange Index and any Component underlying the Index, the principal stock exchange on which such Component of the Index is, in the determination of the Calculation Agent, principally traded; and
- (c) for any Component which is a Share, the principal stock exchange on which such Component share is, in the determination of the Calculation Agent, principally traded.

"Exchange Business Day" means:

- (a) for any Unitary Index, any Scheduled Trading Day on which each Exchange and each Related Exchange for the Index are open for trading during their respective regular trading sessions, notwithstanding any such Exchange or Related Exchange for the Index closing prior to its Scheduled Closing Time; and
- (b) for any Multi-Exchange Index, any Scheduled Trading Day on which (i) the Index Sponsor calculates and publishes the level of the Index and (ii) the Related Exchange for the Index is

open for trading during its regular trading session, notwithstanding the Related Exchange for the Index closing prior to its Scheduled Closing Time.

"Exchange Disruption" means:

- (a) for any Unitary Index, any event (other than an Early Closure) that disrupts or impairs, as determined by the Calculation Agent, the ability of market participants in general to effect transactions in, or obtain market values for, (i) the Components on any relevant Exchange(s) that comprise 20 per cent. or more of the level of the Index or (ii) futures or options contracts relating to the Index on any relevant Related Exchange; and
- (b) for any Multi-Exchange Index, any event (other than an Early Closure) that disrupts or impairs, as determined by the Calculation Agent, the ability of market participants in general to effect transactions in, or obtain market values for, (i) any Component on the relevant Exchange in respect of such Component or (ii) futures or options contracts relating to the Index on the relevant Related Exchange.

"Factor Index" means any Index specified as such in the relevant Issue Specific Conditions.

"Fallback Valuation Date" means, in respect of any Index, the date(s) specified as such in the relevant Issue Specific Conditions for any date specified in the relevant Issue Specific Conditions on which the level of the Index is required to be determined, or, if **"Default Fallback Valuation Date"** is specified in the relevant Issue Specific Conditions, then the Fallback Valuation Date for any date on which the level of the Index is required to be determined shall be the second Business Day prior to the next following date upon which any payment or delivery of assets may have to be made by the Issuer by reference to the level of the Index on such day.

"Final Index Level" means an amount equal to the official closing level for the relevant Index as of the Valuation Time on or in respect of the relevant Valuation Date as calculated and published by the Index Sponsor, as determined by the Calculation Agent.

"Hedging Entity" has the meaning given to it in Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*).

"Index" means, subject to adjustment in accordance with the Index Linked Provisions, the index specified as such in the relevant Issue Specific Conditions, and related expressions shall be construed accordingly.

"Index Adjustment Event" means an Index Cancellation, an Index Disruption, an Index Modification or an Administrator/Benchmark Event.

"Index Cancellation" means the occurrence of the relevant Index Sponsor or Successor Index Sponsor, as applicable, on or prior to any Reference Date or any other relevant date, permanently cancelling a relevant Index and no Successor Index existing as at the date of such cancellation, as determined by the Calculation Agent.

"Index Disruption" means the occurrence of the relevant Index Sponsor or Successor Index Sponsor, as applicable, on any Reference Date or any other relevant date, failing to calculate and announce a relevant Index level, as determined by the Calculation Agent, provided that, in respect of a Multi-Exchange Index, the Calculation Agent may, in its discretion, determine that such event instead results in the occurrence of a Disrupted Day.

"Index-Linked Derivatives Contract" means any futures, options or other derivatives contract relating to the Index as specified in the relevant Issue Specific Conditions, and related expressions shall be construed accordingly.

"Index-Linked Derivatives Contract Adjustment Event" means, and shall have occurred if, the Calculation Agent determines that, any term of the relevant Index-Linked Derivatives Contract has been changed or modified by the Derivatives Exchange (including if it is permanently discontinued),

and the Calculation Agent determines that such change or modification could have a material effect on the Securities.

"Index Modification" means the occurrence of the relevant Index Sponsor or Successor Index Sponsor, as applicable, on or prior to any Reference Date or any other relevant date, making or announcing that it will make a material change in the formula for, or the method of, calculating a relevant Index, or in any other way materially modifying such Index (other than a modification prescribed in that formula or method to maintain such Index in the event of changes in the Components, capitalisation and/or other routine events), as determined by the Calculation Agent.

"Index Settlement Disruption Event" means, in respect of a Component of an Index, an event that the Calculation Agent determines is beyond the control of the Issuer and/or its affiliates as a result of which the relevant Component Clearance System cannot clear the transfer of such Component.

"Index Sponsor" means, for any Index:

- (a) the entity specified as such in the relevant Issue Specific Conditions; or
- (b) if no entity is specified in the relevant Issue Specific Conditions, the corporation or other entity that, as determined by the Calculation Agent is responsible for setting and reviewing the rules and procedures and the methods of calculation and adjustments, if any, related to such Index,

and includes any corporation or other entity appointed by such entity, as determined by the Calculation Agent, that is responsible for announcing (directly or through an agent) the level of such Index on a regular basis in respect of each Scheduled Trading Day.

"Market Disruption Event" means:

- (a) for any Unitary Index, the occurrence or existence of (i) a Trading Disruption, (ii) an Exchange Disruption, which in either case the Calculation Agent determines is material, at any time during the one-hour period that ends at the relevant Valuation Time, or (iii) an Early Closure.

For the purposes of determining whether a Market Disruption Event in respect of a Unitary Index exists at any time, if a Market Disruption Event occurs in respect of a Component included in the Index at any time, then the relevant percentage contribution of such Component to the level of the Index shall be based on a comparison of (x) the portion of the level of the Index attributable to such Component and (y) the overall level of the Index, in each case immediately before the occurrence of such Market Disruption Event; and

- (b) for any Multi-Exchange Index, either:
 - (i) (I) the occurrence or existence, in respect of any Component, of:
 - (A) a Trading Disruption in respect of such Component, which the Calculation Agent determines is material, at any time during the one-hour period that ends at the relevant Valuation Time in respect of the Exchange on which such Component is principally traded;
 - (B) an Exchange Disruption in respect of such Component, which the Calculation Agent determines is material at any time during the one-hour period that ends at the relevant Valuation Time in respect of the Exchange on which such Component is principally traded; or
 - (C) an Early Closure in respect of such Component; and
 - (II) the aggregate of all Components in respect of which a Trading Disruption, an Exchange Disruption or an Early Closure occurs or exists comprises 20 per cent. or more of the level of such Multi-Exchange Index; or

- (ii) the occurrence or existence, in each case in respect of futures or options contracts relating to the Index, of (A) a Trading Disruption or (B) an Exchange Disruption, which in either case the Calculation Agent determines is material, at any time during the one-hour period that ends at the Valuation Time in respect of the Related Exchange, or (C) an Early Closure.

For the purposes of determining whether a Market Disruption Event in respect of a Multi-Exchange Index exists at any time, if an Early Closure, an Exchange Disruption, or a Trading Disruption occurs in respect of a Component at that time, then the relevant percentage contribution of such Component to the level of the Index shall be based on a comparison of (x) the portion of the level of the Index attributable to that Component and (y) the overall level of the Index, in each case immediately before the occurrence of such Market Disruption Event.

- (c) for any Factor Index, the failure by the Index Sponsor to calculate and publish the level of such Factor Index on any Scheduled Trading Day.

"Maximum Days of Disruption" means eight Scheduled Trading Days or such other number of Scheduled Trading Days specified in the relevant Issue Specific Conditions.

"Multi-Exchange Index" means any Index which is specified as such in the relevant Issue Specific Conditions, or, if not specified, any Index the Calculation Agent determines as such.

"Reference Asset" means the reference asset specified as such in the relevant Issue Specific Conditions.

"Reference Asset Price" means, in respect of a Scheduled Trading Day, the relevant level of that Index as specified in the relevant Issue Specific Conditions.

"Reference Date" means the Valuation Date and/or any other date specified as such in the relevant Issue Specific Conditions, or if such date is not a Scheduled Trading Day in respect of an Index, the next following Scheduled Trading Day.

"Related Exchange" means:

- (a) for any Unitary Index or Multi-Exchange Index, each exchange or quotation system, if any, specified as such in the relevant Issue Specific Conditions, any successor to such exchange or quotation system or any substitute exchange or quotation system to which trading in futures or options contracts relating to the Index has temporarily relocated (provided that the Calculation Agent has determined that there is comparable liquidity relative to the futures or options contracts relating to the Index on such temporary substitute exchange or quotation system as on the original Related Exchange), provided, however, that where "All Exchanges" is specified as the Related Exchange, "Related Exchange" shall mean each exchange or quotation system (as determined by the Calculation Agent) where trading has a material effect (as determined by the Calculation Agent) on the overall market for futures or options contracts relating to the Index; and
- (b) for any Component which is a Share, each exchange or quotation system where trading has a material effect on the overall market for futures or options contracts relating to the Component share (as determined by the Calculation Agent).

"Scheduled Closing Time" means, in respect of an Index and in respect of an Exchange or Related Exchange and a Scheduled Trading Day, the scheduled weekday closing time of such Exchange or Related Exchange on such Scheduled Trading Day, without regard to after hours or any other trading outside of the regular trading session hours.

"Scheduled Reference Date" means any original date that, but for the occurrence of an event causing a Disrupted Day, would have been the Reference Date.

"Scheduled Trading Day" means, in respect of:

- (a) any Unitary Index, any day on which each Exchange and each Related Exchange for the Index are scheduled to be open for trading for their respective regular trading sessions;
- (b) any Multi-Exchange Index, any day on which (i) the Index Sponsor is scheduled to publish the level of the Index and (ii) the Related Exchange for the Index is scheduled to be open for trading for its regular trading session;
- (c) any Component which is a Share, any day on which the relevant Exchange referenced by the Index and the relevant Related Exchange for such Component are scheduled to be open for trading for their respective regular trading sessions;
- (d) any Component which is not a Share, any day on which the value, level or price, as is applicable, is scheduled to be published or disseminated, or is otherwise scheduled to be available; and
- (e) in respect of any Factor Index, any day on which the Index Sponsor is scheduled to publish the level of such Factor Index.

"Settlement Cycle" means the period of Component Clearance System Business Days following a trade in the Components underlying the relevant Index on the Exchange in which settlement will customarily occur according to the rules of such Exchange (or, if there are multiple Exchanges in respect of an Index, the longest such period).

"Share" means, in respect of an Index, any share included in such Index, as determined by the Calculation Agent.

"Share Disrupted Day" means, in respect of a Component which is a Share, any Scheduled Trading Day on which a relevant Exchange or any Related Exchange fails to open for trading during its regular trading session or on which (a) a Trading Disruption, (b) an Exchange Disruption which in either case the Calculation Agent determines is material, at any time during the one-hour period which ends at the relevant Valuation Time or (c) an Early Closure has occurred in respect of such Component.

"Successor Index" has the meaning given in Index Linked Provision 4 (*Consequences of a Successor Index Sponsor or Successor Index*).

"Successor Index Sponsor" has the meaning given in Index Linked Provision 4 (*Consequences of a Successor Index Sponsor or Successor Index*).

"Trading Disruption" means:

- (a) in respect of any Unitary Index, any suspension of, or limitation imposed on, trading by any relevant Exchange or Related Exchange or otherwise, and whether by reason of movements in price exceeding limits permitted by the relevant Exchange or Related Exchange or otherwise, (i) relating to Components that comprise 20 per cent. or more of the level of the Index on any relevant Exchange or (ii) in futures or options contracts relating to the Index on any relevant Related Exchange; and
- (b) in respect of any Multi-Exchange Index, any suspension or limitation imposed on trading by any relevant Exchange or Related Exchange or otherwise, and whether by reason of movements in price exceeding limits permitted by the relevant Exchange or Related Exchange or otherwise, (i) relating to any Component on the Exchange in respect of such Component or (ii) in futures or options contracts relating to the Index on the Related Exchange.

"Unitary Index" means any Index which is specified as such in the relevant Issue Specific Conditions, or, if not specified, any Index the Calculation Agent determines as such.

"Valuation Time" means:

- (a) in respect of any Unitary Index, (i) for the purposes of determining whether an Early Closure, an Exchange Disruption or a Trading Disruption has occurred in respect of (I) any Exchange, the Scheduled Closing Time of the Exchange (provided that, if the relevant Exchange closes prior to its Scheduled Closing Time, then the Valuation Time shall be such actual closing

time), and (II) any options contracts or futures contracts on such Index, the close of trading on the Related Exchange, and (ii) in all other circumstances, the time at which the official closing level of the Index is calculated and published by the Index Sponsor;

- (b) in respect of any Multi-Exchange Index, (i) for the purposes of determining whether an Early Closure, an Exchange Disruption or a Trading Disruption has occurred in respect of (I) any Component, the Scheduled Closing Time on the Exchange in respect of such Component (provided that, if the relevant Exchange closes prior to its Scheduled Closing Time, then the Valuation Time shall be such actual closing time), and (II) any options contracts or futures contracts on the Index, the close of trading on the Related Exchange, and (ii) in all other circumstances, the time at which the official closing level of the Index is calculated and published by the Index Sponsor, or
- (c) in respect of any Factor Index, the time at which the Index Sponsor calculates and published the official closing level of such Factor Index.

C. COMMODITY LINKED PROVISIONS

These Commodity Linked Provisions apply to Securities for which the relevant Issue Specific Conditions specify that the Commodity Linked Provisions are applicable.

1. Consequences of Disrupted Days

If the Calculation Agent determines that any Reference Date is a Disrupted Day, and, if in the relevant Issue Specific Conditions the consequence specified is:

- (a) **"Calculation Agent Determination"**, then the Calculation Agent will, in its reasonable discretion, determine the Reference Asset Price (or a method for determining a Reference Asset Price), taking into consideration the latest available quotation for the relevant price of the Commodity, the relevant market conditions at the time of the relevant determination and any other information that it deems relevant in respect of such Reference Date; or
- (b) **"Postponement"**, then the Reference Date for such Commodity shall be the first succeeding Scheduled Trading Day in respect of the Commodity that the Calculation Agent determines is not a Disrupted Day in respect of such Commodity, unless the Calculation Agent determines that each of the consecutive Scheduled Trading Days in respect of the Commodity equal in number to the Maximum Days of Disruption in respect of such Commodity immediately following the Scheduled Reference Date is a Disrupted Day for such Commodity. In that case:
 - (i) the last consecutive Scheduled Trading Day shall be deemed to be the Reference Date for such Commodity, notwithstanding the fact that such day is a Disrupted Day for such Commodity; and
 - (ii) the Calculation Agent shall, in its reasonable discretion, determine the level of the Commodity (as of the Valuation Time) on that last consecutive Scheduled Trading Day, taking into account any relevant market conditions at the time of such determination, and such value as determined by the Calculation Agent pursuant to this paragraph (ii) shall be deemed to be the Reference Asset Price in respect of the relevant Reference Date,

provided that if the Calculation Agent determines that the Reference Asset Price cannot be determined by applying any of the applicable fallbacks above, the Calculation Agent may determine that the Securities shall be early redeemed. The Issuer shall give notice to the Holders in accordance with Section 16 of the General Conditions (*Notices*) designating the early payment date (the **"Early Payment Date"**). In the case of an early redemption the Issuer will cause to be paid to each Holder in respect of each Security held by it an amount equal to the Early Payment Amount (as defined under Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*)), provided that the words "(but ignoring the event which resulted in such early redemption)" shall be deleted). Payment of the Early Payment Amount will be made in such manner as shall be notified to the Holders in accordance with Section 16 of the General Conditions (*Notices*).

2. Administrator/Benchmark Event on non-Reference Dates

If the Calculation Agent determines that an Administrator/Benchmark Event has occurred or is in existence in respect of the Securities on any day that is not a Reference Date during the term of the Securities, the Calculation Agent may determine that the Securities shall be early redeemed. The Issuer shall give notice to the Holders in accordance with Section 16 of the General Conditions (*Notices*) designating the early payment date (the **"Early Payment Date"**). In the case of an early redemption the Issuer will cause to be paid to each Holder in respect of each Security held by it an amount equal to the Early Payment Amount (as defined under Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*)), provided that the words "(but ignoring the event which resulted in such early redemption)" shall be deleted). Payment of the Early Payment Amount will be made in such manner as shall be notified to the Holders in accordance with Section 16 of the General Conditions (*Notices*).

3. Correction to Published Prices

In the event that any price or value of the Commodity published or announced on any date which is utilised for any calculation or determination in connection with the Securities is subsequently corrected and the correction is published or announced by the Trading Facility or any other person responsible for that publication or announcement by the earlier of:

- (i) 30 calendar days after the original publication or announcement; and
- (ii) the second Business Day prior to the next date upon which any relevant payment or delivery may have to be made by the Issuer or in respect of which any relevant determination in respect of the Securities may have to be made,

then the Calculation Agent may determine the amount that is payable or make any determination in connection with Securities, after taking into account such correction, and, to the extent necessary, may adjust any relevant terms of the Securities to account for such correction.

Upon making any such determination or adjustment, as applicable, to take into account any such correction, the Calculation Agent shall give notice as soon as practicable to the Holders stating the determination or adjustment, as applicable, to any amount payable under the Securities and/or any of the other relevant terms and giving brief details of the determination or adjustment, as applicable, provided that any failure to give such notice shall not affect the validity of the determination or adjustment, as applicable, or any action taken.

4. Fallback Valuation Dates

In respect of a Commodity, and notwithstanding any other terms of the Commodity Linked Provisions applicable to a Commodity, if a Fallback Valuation Date is specified in the relevant Issue Specific Conditions to be applicable to any Reference Date for a Commodity and if, following adjustment of such Reference Date pursuant to Commodity Linked Provision 1 (*Consequences of Disrupted Days*), the Reference Date would otherwise fall after the specified Fallback Valuation Date in respect of the Commodity, then the Fallback Valuation Date shall be deemed to be such Reference Date for the Commodity.

If the Fallback Valuation Date is not a Scheduled Trading Day or is a Disrupted Day, the Reference Asset Price of such Commodity shall be determined in accordance with the "Calculation Agent Determination" provisions under Commodity Linked Provision 1 (a) (*Consequences of Disrupted Days*) above on such Fallback Valuation Date, and the price so determined shall be deemed to be the Reference Asset Price in respect of the relevant Reference Date.

5. Early redemption following Commodity Hedging Disruption

Unless the relevant Issue Specific Conditions specify that Commodity Hedging Disruption is not applicable, upon the occurrence of a Commodity Hedging Disruption, the Issuer may, in its reasonable discretion on giving not less than five nor more than 30 days' irrevocable notice, redeem the Securities on the date set for redemption in such notice by payment of the Early Payment Amount under Commodity Linked Provision 9 (*Early Redemption*) below.

6. Adjustments to Securities linked to Commodities in European Currencies

In respect of any Securities linked to or relating to Commodities originally quoted, traded listed and/or dealt as of the Issue Date in a currency of a member state of the European Union that has not adopted the single currency in accordance with the EC Treaty, or if the relevant Reference Asset Price is in such currency, if such Commodities are at any time after the Issue Date quoted, listed, traded and/or dealt exclusively in euro on the relevant Trading Facility or, where no Trading Facility is specified, the principal market on which those Commodities are traded, or if the relevant Reference Asset Price is changed to the euro, then the Calculation Agent may make such adjustment to the exercise, settlement, payment or any other terms of the Securities as the Calculation Agent determines appropriate to preserve the economic terms of the Securities. The Calculation Agent will make any conversion necessary for purposes of any such adjustment based on the relevant official conversion rate or such mid-market spot rate of exchange, as determined to be appropriate in the reasonable discretion of the

Calculation Agent. No adjustments under this Commodity Linked Provision 6 will affect the currency denomination of any payment obligation arising out of the Securities.

7. Consequences of Additional Disruption Events

Following the determination by the Calculation Agent that an Additional Disruption Event has occurred, the Calculation Agent may, in its reasonable discretion:

- (a) determine to make such adjustment to the exercise, settlement, payment or any other terms of the Securities as the Calculation Agent determines appropriate to account for such Additional Disruption Event; and/or
- (b) may direct the Issuer to redeem the Securities under Commodity Linked Provision 9 (*Early Redemption*) below.

8. Successor to a Reference Asset Price

If in respect of any relevant Reference Date or any other relevant date which is utilised for any calculation or determination in relation to Securities, the Calculation Agent determines in its reasonable discretion that (a) a Reference Asset Price is not announced or published by the Trading Facility but is calculated and announced or published by a successor entity acceptable to the Calculation Agent, such price as so calculated and announced or published by such successor entity will be deemed to be the Reference Asset Price, (b) a Reference Asset Price is replaced by a successor price in respect of such Commodity calculated using, as determined by the Calculation Agent, the same or a substantially similar formula for and method of calculation as used in the calculation of such Reference Asset Price, such price as so calculated will be deemed to be the Reference Asset Price, or (c) a Reference Asset Price ceases to be announced or published by a Trading Facility and/or the formula for and/or the method of calculation of such Reference Asset Price is being materially changed, but a price or two or more prices in respect of the same Commodity as such Reference Asset Price exists, or will exist from a future date, and such price is, or two or more of such prices are, as is applicable, in the determination of the Calculation Agent, accepted or recognised by the dealers in the relevant market for such Commodity as being the successor, or a successor, as is applicable, to such Reference Asset Price, then such successor price, or one of such successor prices as is selected by the Calculation Agent in its discretion, as is applicable, will be deemed to be the Reference Asset Price from the date determined by the Calculation Agent. Following such determination, the Calculation Agent will make such adjustment(s) that it determines to be appropriate, if any, to any variable, calculation methodology, valuation, settlement, payment terms or any other terms of the Securities to account for such successor Reference Asset Price.

On making any such adjustment(s) or determination(s), the Calculation Agent shall give notice in accordance with Section 16 of the General Conditions (*Notices*) as soon as practicable to the Holders stating the adjustment to any amount payable under the Securities, the determination and/or any of the other relevant terms and giving brief details of event which resulted in the successor Reference Asset Price, provided that any failure to give such notice shall not affect the validity of the successor Reference Asset Price or any action taken.

9. Early Redemption

If following the occurrence of any of the relevant events listed in the provisions above, the Calculation Agent has directed the Issuer to redeem the Securities, the Issuer shall, within one month following the occurrence of the relevant event, give notice to the Holders in accordance with Section 16 of the General Conditions (*Notices*) designating the early payment date (the "**Early Payment Date**"). On the Early Payment Date, the Issuer shall redeem all, but not some only, of the Securities and it shall pay an amount equal to the Early Payment Amount (as defined under Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*)), provided that the words "(but ignoring the event which resulted in such early redemption)" shall be deleted) to each Holder in respect of each Security held by it. Payment of the Early Payment Amount will be made in such manner as shall be notified to the Holders in accordance with Section 16 of the General Conditions (*Notices*).

10. Non-compliant Fallbacks

Notwithstanding anything else in these Commodity Linked Provisions, if, in respect of the Securities, it (a) is or would be unlawful at any time under any applicable law or regulation or (b) would contravene any applicable licensing requirements, in each case, for the Calculation Agent to determine the Reference Asset Price or make any other determination in respect of the Securities which it would otherwise be obliged to do so under these Commodity Linked Provisions (or it would be unlawful or would contravene those licensing requirements were a determination to be made at such time), then (where no other applicable provision in these Commodity Linked Provisions results in such determination being made) the Calculation Agent may determine that the Securities shall be early redeemed. The Issuer shall give notice to the Holders in accordance with Section 16 of the General Conditions (*Notices*) designating the early payment date (the "**Early Payment Date**"). In the case of an early redemption the Issuer will cause to be paid to each Holder in respect of each Security held by it an amount equal to the Early Payment Amount (as defined under Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*)), provided that the words "(but ignoring the event which resulted in such early redemption)" shall be deleted). Payment of the Early Payment Amount will be made in such manner as shall be notified to the Holders in accordance with Section 16 of the General Conditions (*Notices*).

11. Definitions

The following terms and expressions shall have the following meanings in relation to Securities to which these Commodity Linked Provisions apply:

"**Additional Disruption Event**" means a Change in Law.

"**Bloomberg Screen**" means, in respect of a Reference Asset Price, when used in connection with any designated page, the display page so designated on the Bloomberg® service (or such other page as may replace that page on that service for the purpose of displaying prices comparable to such Reference Asset Price, as determined by the Calculation Agent).

"**Calculation Hours**" has the meaning given to it in the applicable Issue Specific Conditions.

"**CFTC**" means the U.S. Commodity Futures Trading Commission.

"**Change in Law**" means that, on or after the Issue Date of the Securities (a) due to the adoption of or any change in any applicable law or regulation (including, without limitation, any tax law), or (b) due to the promulgation of or any change in the interpretation by any court, tribunal or regulatory authority with competent jurisdiction of any applicable law or regulation (including any action taken by a taxing authority), it has, or it will, within the next 15 calendar days but on or prior to the Maturity Date, become illegal for any of the Issuer and/or the Hedging Entity and/or any of their respective affiliates to hold, acquire or dispose of any relevant commodity, futures contract, options contract or other asset.

"**Commodity**" means the commodity specified as such in the relevant Issue Specific Conditions.

"**Commodity Business Day Convention**" means the convention for adjusting any Reference Date or other relevant date if it would otherwise fall on a day that is not a Scheduled Trading Day. If the relevant Issue Specific Conditions specify, in respect of such Reference Date or other date, that:

- (a) "**Following**" shall apply to such Reference Date or other date, then if the Scheduled Reference Date or other scheduled date corresponding to such date is not a Scheduled Trading Day, the Reference Date or other date will be the first following day that is a Scheduled Trading Day;
- (b) "**Modified Following**" shall apply to such Reference Date or other date, then if the Scheduled Reference Date or other scheduled date corresponding to such date is not a Scheduled Trading Day, the Reference Date or other date will be the first following day that is a Scheduled Trading Day, unless that day falls in the next calendar month, in which case that date will be the first preceding day that is a Scheduled Trading Day;

- (c) **"Nearest"** shall apply to such Reference Date or other date, then if the Scheduled Reference Date or other scheduled date corresponding to such date is not a Scheduled Trading Day, the Reference Date or other date will be (i) the first preceding day that is a Scheduled Trading Day if such date falls on a day other than a Sunday or Monday and (ii) the first following day that is a Scheduled Trading Day if such date falls on a Sunday or Monday;
- (d) **"Preceding"** shall apply to such Reference Date or other date, then if the Scheduled Reference Date or other scheduled date corresponding to such date is not a Scheduled Trading Day, the Reference Date or other date will be the first preceding day that is a Scheduled Trading Day; or
- (e) **"No Adjustment"** shall apply to such Reference Date or other date, then if the Scheduled Reference Date or other scheduled date corresponding to such date is not a Scheduled Trading Day, the Reference Date or other date will nonetheless be such Scheduled Reference Date or other scheduled date.

If the relevant Issue Specific Conditions does not specify an applicable Commodity Business Day Convention, then it shall be deemed that "Modified Following" shall apply.

"Commodity Hedging Disruption" means that:

- (a) due to (i) the adoption of, or any change in, any applicable law, regulation, rule or order (including, without limitation, any tax law); or (ii) the promulgation of, or any change in, the interpretation, application, exercise or operation by any court, tribunal, regulatory authority, exchange or trading facility or any other relevant entity with competent jurisdiction of any applicable law, rule, regulation, order, decision or determination (including, without limitation, as implemented by the CFTC or exchange or trading facility), in each case occurring on or after the Issue Date the Calculation Agent determines that it is contrary (or, upon adoption, it will be contrary) to such law, rule, regulation, order, decision or determination for the Hedging Entity to purchase, sell, enter into, maintain, hold, acquire or dispose of Underlying Hedge Transactions (in whole or in part) (in the aggregate on a portfolio basis or incrementally on a trade by trade basis) including (without limitation) if such Underlying Hedge Transactions (in whole or in part) (in the aggregate on a portfolio basis or incrementally on a trade by trade basis) are (or, but for the consequent disposal thereof, would otherwise be) in excess of any allowable position limit(s) in relation to any commodity traded on any exchange(s) or other trading facility (it being within the reasonable discretion of the Hedging Entity to determine which of the relevant assets or transactions are counted towards such limit); and/or
- (b) for any reason, the Hedging Entity is unable, after using commercially reasonable efforts, to (i) acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction(s) or asset(s) the Issuer deems necessary to hedge the risk of entering into and performing its commodity-related obligations with respect to the Securities, or (ii) realise, recover or remit the proceeds of any such transaction(s) or asset(s).

"Disappearance of Reference Asset Price" means:

- (a) the permanent discontinuation of trading, in the relevant Commodity on the relevant Trading Facility;
- (b) the disappearance of, or of trading in, the relevant Commodity; or
- (c) the disappearance or permanent discontinuance or unavailability of a Reference Asset Price,

notwithstanding the availability of the related price source or the status of trading in the relevant Commodity.

"Disrupted Day" means a Scheduled Trading Day or Trading Day on which (i) the Trading Facility is not open for trading during its regular trading session or (ii) on which a Disruption Event occurs.

"Disruption Event" means the occurrence of any of the following events:

- (i) Disappearance of Reference Asset Price;
- (ii) Material Change in Content;
- (iii) Material Change in Formula;
- (iv) Price Source Disruption;
- (v) Trading Disruption;
- (vi) Tax Disruption; and
- (vii) Administrator/Benchmark Event.

"Early Payment Date" has the meaning given thereto in Commodity Linked Provision 9 (*Early Redemption*).

"Fallback Valuation Date" means, in respect of a Commodity, the date(s) specified as such in the relevant Issue Specific Conditions for any date specified in the relevant Issue Specific Conditions on which the price of such Commodity is required to be determined, or, if **"Default Fallback Valuation Date"** is specified in the relevant Issue Specific Conditions, then the Fallback Valuation Date for any date on which the price of such Commodity or the level of such Commodity Index, as the case may be, is required to be determined shall be the second Business Day prior to the next following date upon which any payment or delivery of assets may have to be made by the Issuer by reference to the price of such Commodity or the level of such Commodity Index, as the case may be, on such day.

"Hedging Entity" has the meaning given to it in Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*).

"Material Change in Content" means the occurrence since the Issue Date of a material change in the content, composition or constitution of the relevant Commodity.

"Material Change in Formula" means the occurrence since the Issue Date of a material change in the formula for or the method of calculating the relevant Reference Asset Price.

"Maximum Days of Disruption" means five Scheduled Trading Days or such other number of Scheduled Trading Days specified in the relevant Issue Specific Conditions.

"Price Source Disruption" means, in respect of a Commodity:

- (a) the failure of the Trading Facility to announce or publish the Reference Asset (or the information necessary for determining the Reference Asset Price);
- (b) the temporary or permanent discontinuance or unavailability of the Trading Facility.

"Reference Asset" means the reference asset specified as such in the relevant Issue Specific Conditions.

"Reference Asset Price" means, in respect of a Scheduled Trading Day, the relevant level of that Commodity as specified in the relevant Issue Specific Conditions.

"Reference Date" means the Valuation Date and/or any other date specified as such in the relevant Issue Specific Conditions, subject to adjustment in accordance with the relevant Commodity Business Day Convention.

"Reuters Screen" means, in respect of a Reference Asset Price, when used in connection with any designated page, the display page so designated on Reuters (or such other page as may replace that page on that service for the purpose of displaying prices comparable to such Reference Asset Price, as determined by the Calculation Agent).

"Scheduled Reference Date" means any original date that, but for the occurrence of an event causing a Disrupted Day, would have been the Reference Date.

"Scheduled Trading Day" means, in respect of a Commodity, a day on which the relevant Trading Facility on which such Commodity is traded is scheduled to be open for trading for its regular trading session, notwithstanding any such Trading Facility closing prior to its scheduled closing time.

"Screen Page" means, in respect of a Reference Asset Price, the Bloomberg Screen page and/or the Reuters Screen page and/or such other screen page of such other information provider, on which relevant information for such Reference Asset Price is reported or published, as is specified in the relevant Issue Specific Conditions.

"Tax Disruption" means, in respect of a Commodity, the imposition of, change in or removal of an excise, severance, sales, use, value-added, transfer, stamp, documentary, recording or similar tax on, or measured by reference to, such Commodity (other than a tax on, or measured by reference to overall gross or net income) by any government or taxation authority after the Issue Date if the direct effect of such imposition, change, or removal is to raise or lower the Reference Asset Price on the day that would otherwise be a Reference Date or any other relevant date, as determined by the Calculation Agent, from what it would have been without that imposition, change, or removal.

"Trading Disruption" means the material suspension of, or the material limitation imposed on, trading in the Commodity on the Trading Facility as determined by the Calculation Agent. For these purposes:

- (a) a suspension of the trading in the Commodity on any relevant Reference Date or any other relevant date, as determined by the Calculation Agent, shall be deemed to be material only if:
 - (i) all trading in the Commodity is suspended for the entire Reference Date or other relevant date; or
 - (ii) all trading in the Commodity is suspended subsequent to the opening of trading on the Reference Date or other relevant date, trading does not recommence prior to the regularly scheduled close of trading in such Commodity on such Reference Date or other relevant date and such suspension is announced less than one-hour preceding its commencement; and
- (b) a limitation of trading in the Commodity on any Reference Date or any other relevant date, as determined by the Calculation Agent, shall be deemed to be material only if the relevant Trading Facility establishes limits on the range within which the price of the Commodity may fluctuate and the closing or settlement price of the Commodity on such day is at the upper limit of that range or at the lower limit of that range.

"Trading Facility" means the exchange or trading facility or principal trading market as specified in the relevant Issue Specific Conditions or, in each case, any successor to such exchange or trading facility or principal trading market to which trading in the relevant Commodity has temporarily relocated, as determined, in its reasonable discretion, by the Calculation Agent.

"Underlying Hedge Transactions" has the meaning given to it in Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*).

"Valuation Time" means, in respect of a Commodity, each time specified as such in the relevant Issue Specific Conditions.

D. FUTURES CONTRACT LINKED PROVISIONS

These Futures Contract Linked Provisions apply to Securities for which the relevant Issue Specific Conditions specify that the Futures Contract Linked Provisions are applicable.

1. Consequences of Disrupted Days

If the Calculation Agent determines that any Reference Date is a Disrupted Day, and, if in the relevant Issue Specific Conditions the consequence specified is:

- (a) **"Calculation Agent Determination"**, then the Calculation Agent will, in its reasonable discretion, determine the Reference Asset Price (or a method for determining a Reference Asset Price), taking into consideration the latest available quotation for the relevant price of the Futures Contract, the relevant market conditions at the time of the relevant determination and any other information that it deems relevant on such Reference Date; or
- (b) **"Postponement"**, then the Reference Date for such Futures Contract shall be the first succeeding Scheduled Trading Day in respect of the Futures Contract that the Calculation Agent determines is not a Disrupted Day in respect of such Futures Contract, unless the Calculation Agent determines that each of the consecutive Scheduled Trading Days in respect of the Futures Contract equal in number to the Maximum Days of Disruption in respect of such Futures Contract immediately following the Scheduled Reference Date is a Disrupted Day for such Futures Contract. In that case:
 - (i) the last consecutive Scheduled Trading Day shall be deemed to be the Reference Date for such Futures Contract, notwithstanding the fact that such day is a Disrupted Day for such Futures Contract; and
 - (ii) the Calculation Agent shall, in its reasonable discretion, determine the level of the Futures Contract (as of the Valuation Time) on that last consecutive Scheduled Trading Day, taking into account any relevant market conditions at the time of such determination, and such value as determined by the Calculation Agent pursuant to this paragraph (ii) shall be deemed to be the Reference Asset Price in respect of the relevant Reference Date,

provided that if the Calculation Agent determines that the Reference Asset Price cannot be determined by applying any of the applicable fallbacks above, the Calculation Agent may determine that the Securities shall be early redeemed. The Issuer shall give notice to the Holders in accordance with Section 16 of the General Conditions (*Notices*) designating the early payment date (the **"Early Payment Date"**). In the case of an early redemption the Issuer will cause to be paid to each Holder in respect of each Security held by it an amount equal to the Early Payment Amount (as defined under Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*)), provided that the words "(but ignoring the event which resulted in such early redemption)" shall be deleted). Payment of the Early Payment Amount will be made in such manner as shall be notified to the Holders in accordance with Section 16 of the General Conditions (*Notices*).

2. Administrator/Benchmark Event on non-Reference Dates

If the Calculation Agent determines that an Administrator/Benchmark Event has occurred or is in existence in respect of the Securities on any day that is not a Reference Date during the term of the Securities, the Calculation Agent may determine that the Securities shall be early redeemed. The Issuer shall give notice to the Holders in accordance with Section 16 of the General Conditions (*Notices*) designating the early payment date (the **"Early Payment Date"**). In the case of an early redemption the Issuer will cause to be paid to each Holder in respect of each Security held by it an amount equal to the Early Payment Amount (as defined under Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*)), provided that the words "(but ignoring the event which resulted in such early redemption)" shall be deleted). Payment of the Early Payment Amount will be made in such manner as shall be notified to the Holders in accordance with Section 16 of the General Conditions (*Notices*).

3. Correction to Published Prices

In the event that any price or value of the Futures Contract published or announced on any date which is utilised for any calculation or determination in connection with the Securities is subsequently corrected and the correction is published or announced by the Trading Facility or any other person responsible for that publication or announcement by the earlier of:

- (i) 30 calendar days after the original publication or announcement; and
- (ii) the second Business Day prior to the next date upon which any relevant payment or delivery may have to be made by the Issuer or in respect of which any relevant determination in respect of the Securities may have to be made,

then the Calculation Agent may determine the amount that is payable or make any determination in connection with Securities, after taking into account such correction, and, to the extent necessary, may adjust any relevant terms of the Securities to account for such correction.

Upon making any such determination or adjustment, as applicable, to take into account any such correction, the Calculation Agent shall give notice as soon as practicable to the Holders stating the determination or adjustment, as applicable, to any amount payable under the Securities and/or any of the other relevant terms and giving brief details of the determination or adjustment, as applicable, provided that any failure to give such notice shall not affect the validity of the determination or adjustment, as applicable, or any action taken.

4. Successor Entity calculates and reports a Reference Asset Price

If in respect of any relevant Reference Date, either a Reference Asset Price is (i) not calculated and announced by the Trading Facility but is calculated and announced by a successor entity acceptable to the Calculation Agent or (ii) replaced by a successor price calculated using, as determined, in its reasonable discretion, by the Calculation Agent, the same or a substantially similar formula for and method of calculation as used in the calculation of such Reference Asset Price, then in each case, such price as so calculated will be deemed to be the Reference Asset Price.

If the Calculation Agent determines, in its reasonable discretion, that either (A) the relevant successor to the Trading Facility is not acceptable as aforesaid, or (B) that the new Reference Asset Price is not suitable or would not otherwise produce a commercially reasonable result, it may direct the Issuer to redeem the Securities under Futures Contract Linked Provision 11 (*Early Redemption*) below.

5. Fallback Valuation Dates

In respect of a Futures Contract, and notwithstanding any other terms of the Futures Contract Linked Provisions applicable to a Futures Contract, if a Fallback Valuation Date is specified in the relevant Issue Specific Conditions to be applicable to any Reference Date for a Futures Contract and if, following adjustment of such Reference Date pursuant to Futures Contract Linked Provision 1 (*Consequences of Disrupted Days*), the Reference Date would otherwise fall after the specified Fallback Valuation Date in respect of the Futures Contract, then the Fallback Valuation Date shall be deemed to be such Reference Date for the Futures Contract.

If the Fallback Valuation Date is not a Scheduled Trading Day or is a Disrupted Day, the Reference Asset Price of such Futures Contract shall be determined in accordance with the "Calculation Agent Determination" provisions under Futures Contract Linked Provision 1.1(a) above on such Fallback Valuation Date, and the price so determined shall be deemed to be the Reference Asset Price in respect of the relevant Reference Date.

6. Rolling Futures Provisions

If it is specified in the applicable Issue Specific Conditions that the "**Rolling Futures Provisions**" apply, the relevant Futures Contract shall be replaced on each Rollover Date for that Futures Contract with a Futures Contract for which the expiration date falls in the nearest Relevant Month specified in the Issue Specific Conditions. The replacement described above is subject to the condition that the Rollover Price of the Futures Contract for which the expiration date falls in the nearest Relevant Month is positive. If the Rollover Price of the Futures Contract for which expiration date falls in the nearest

Relevant Month is zero or negative, the Calculation Agent has the right, but not the obligation, to replace the expiring Futures Contract by the next maturing Futures Contract which has a positive Rollover Price on the Rollover Date. If, in the reasonable discretion of the Calculation Agent, there is no Futures Contract on the relevant Rollover Date the underlying terms or applicable contract characteristics of which are substantially identical to those of the Futures Contract to be replaced, the Calculation Agent may direct the Issuer to redeem the Securities under Futures Contract Linked Provision 11 (*Early Redemption*). Furthermore, the Calculation Agent has the right to adjust the Relevant Month in the case of a change of the authoritative rules of the Trading Facility concerning expiration dates. Any such adjustment is announced in accordance with Section 16 of the General Conditions (*Notices*). Each reference in the Conditions to "**Futures Contract**" is regarded as a reference to the futures contract that is relevant at the applicable time following completion of the replacement outlined above.

The following adjustments are made on the Rollover Date if "**Strike Adjustment**" is applicable pursuant to the relevant Issue Specific Conditions: On the Rollover Date the Current Strike shall be adjusted, such that, immediately before the next scheduled adjustment of the Current Strike falling after the determination of the Rollover Price under Section 6 of the General Conditions (*Strike, Adjustment of Strike*), the result of the following calculation (unless the relevant Issue Specific Conditions provide for another calculation), rounded to the nearest multiple of the Strike Rounding Amount, is the new Current Strike (rounded up in the case of Unlimited Turbo Long Warrants and/or BEST Turbo Certificates Long and/or Mini Future Long Warrants and/or Turbo Certificates Long and rounded down in the case of Unlimited Turbo Short Warrants and/or BEST Turbo Certificates Short and/or Mini Future Short Warrants and/or Turbo Certificates Short).

in the case of Unlimited Turbo Long Warrants and/or BEST Turbo Certificates Long and/or Mini Future Long Warrants and/or Turbo Certificates Long

$$Strike_{new} = Strike_{old} - RK_{old} + RK_{new} + Fee * (|RK_{old}| + |RK_{new}|)$$

in the case of Unlimited Turbo Short Warrants and/or BEST Turbo Certificates Short and/or Mini Future Short Warrants and/or Turbo Certificates Short

$$Strike_{new} = Strike_{old} - RK_{old} + RK_{new} - Fee * (|RK_{old}| + |RK_{new}|)$$

"Strike_{new}" corresponds to the Current Strike on the Rollover Date after the Rollover

"Strike_{old}" corresponds to the Current Strike adjusted on the Rollover Date in accordance with Section 6 of the General Conditions (Strike, Adjustment of Strike)

"RK_{old}" corresponds to the Rollover Price for the relevant Futures Contract, as applicable, prior to the Rollover

"RK_{new}" corresponds to the Rollover Price for the Futures Contract after the Rollover

"Fee" corresponds to the Transaction Fee.

The following adjustments are made on the Rollover Date if "**Ratio Adjustment**" is applicable pursuant to the relevant Issue Specific Conditions:

On the Rollover Date the current Ratio applicable prior to the Rollover ("**Ratio_{old}**") is adjusted pursuant to the following formula:

$$Ratio_{new} = Ratio_{old} * (RK_{old} / RK_{new}) * (1 - Fee) / (1 + Fee)$$

"Ratio_{new}" corresponds to the current Ratio on the Rollover Date after the Rollover

"RK_{old}" corresponds to the Rollover Price for the relevant Futures Contract, as applicable, prior to the Rollover

"RK_{new}" corresponds to the Rollover Price for the Futures Contract after the Rollover

"Fee" corresponds to the Transaction Fee.

7. Early redemption following Futures Contract Hedging Disruption

Unless the relevant Issue Specific Conditions specify that Futures Contract Hedging Disruption is not applicable, upon the occurrence of a Futures Contract Hedging Disruption, the Issuer may, in its reasonable discretion on giving not less than five nor more than 30 days' irrevocable notice, redeem the Securities on the date set for redemption in such notice by payment of the Early Payment Amount under Futures Contract Linked Provision 11 (*Early Redemption*) below.

8. Adjustments to Securities linked to Futures Contracts in European Currencies

In respect of any Securities linked to or relating to Futures Contracts originally quoted, traded listed and/or dealt as of the Issue Date in a currency of a member state of the European Union that has not adopted the single currency in accordance with the EC Treaty, or if the relevant Reference Asset Price is in such currency, if such Futures Contracts are at any time after the Issue Date quoted, listed, traded and/or dealt exclusively in euro on the relevant Trading Facility or, where no Trading Facility is specified, the principal market on which those Futures Contracts are traded, or if the relevant Reference Asset Price is changed to the euro, then the Calculation Agent may make such adjustment to the exercise, settlement, payment or any other terms of the Securities as the Calculation Agent determines appropriate to preserve the economic terms of the Securities. The Calculation Agent will make any conversion necessary for purposes of any such adjustment based on the relevant official conversion rate or such mid-market spot rate of exchange, as determined to be appropriate in the discretion of the Calculation Agent. No adjustments under this Futures Contract Linked Provision 8 will affect the currency denomination of any payment obligation arising out of the Securities.

9. Consequences of Additional Disruption Events

Following the determination by the Calculation Agent that an Additional Disruption Event has occurred, the Calculation Agent may, in its discretion:

- (a) determine to make such adjustment to the exercise, settlement, payment or any other terms of the Securities as the Calculation Agent determines appropriate to account for such Additional Disruption Event; and/or
- (b) may direct the Issuer to redeem the Securities under Futures Contract Linked Provision 11 (*Early Redemption*) below.

10. Successor to a Reference Asset Price

If in respect of any relevant Reference Date or any other relevant date which is utilised for any calculation or determination in relation to Securities, the Calculation Agent determines in its discretion that (a) a Reference Asset Price is not announced or published by the Trading Facility but is calculated and announced or published by a successor entity acceptable to the Calculation Agent, such price as so calculated and announced or published by such successor entity will be deemed to be the Reference Asset Price, (b) a Reference Asset Price is replaced by a successor price in respect of such Futures Contract calculated using, as determined by the Calculation Agent, the same or a substantially similar formula for and method of calculation as used in the calculation of such Reference Asset Price, such price as so calculated will be deemed to be the Reference Asset Price, or (c) a Reference Asset Price ceases to be announced or published by a Trading Facility and/or the formula for and/or the method of calculation of such Reference Asset Price is being materially changed, but a price or two or more prices in respect of the same Futures Contract as such Reference Asset Price exists, or will exist from a future date, and such price is, or two or more of such prices are, as is applicable, in the determination of the Calculation Agent, accepted or recognised by the dealers in the relevant market for such Futures Contract as being the successor, or a successor, as is applicable, to such Reference Asset Price, then such successor price, or one of such successor prices as is selected by the Calculation Agent in its discretion, as is applicable, will be deemed to be the Reference Asset Price from the date determined by the Calculation Agent. Following such determination, the Calculation Agent will make such adjustment(s) that it determines to be appropriate, if any, to any variable, calculation methodology, valuation, settlement, payment terms or any other terms of the Securities to account for such successor Reference Asset Price.

On making any such adjustment(s) or determination(s), the Calculation Agent shall give notice in accordance with Section 16 of the General Conditions (*Notices*) as soon as practicable to the Holders

stating the adjustment to any amount payable under the Securities, the determination and/or any of the other relevant terms and giving brief details of event which resulted in the successor Reference Asset Price, provided that any failure to give such notice shall not affect the validity of the successor Reference Asset Price or any action taken.

11. Early Redemption

If following the occurrence of any of the relevant events listed in the provisions above, the Calculation Agent has directed the Issuer to redeem the Securities, the Issuer shall, within one month following the occurrence of the relevant event, give notice to the Holders in accordance with Section 16 of the General Conditions (*Notices*) designating the early payment date (the "**Early Payment Date**"). On the Early Payment Date, the Issuer shall redeem all, but not some only, of the Securities and it shall pay an amount equal to the Early Payment Amount (as defined under Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*)), provided that the words "(but ignoring the event which resulted in such early redemption)" shall be deleted) to each Holder in respect of each Security held by it. Payment of the Early Payment Amount will be made in such manner as shall be notified to the Holders in accordance with Section 16 of the General Conditions (*Notices*).

12. Non-compliant Fallbacks

Notwithstanding anything else in these Futures Contract Linked Provisions, if, in respect of the Securities, it (a) is or would be unlawful at any time under any applicable law or regulation or (b) would contravene any applicable licensing requirements, in each case, for the Calculation Agent to determine the Reference Asset Price or make any other determination in respect of the Securities which it would otherwise be obliged to do so under these Futures Contract Linked Provisions (or it would be unlawful or would contravene those licensing requirements were a determination to be made at such time), then (where no other applicable provision in these Futures Contract Linked Provisions results in such determination being made) the Calculation Agent may determine that the Securities shall be early redeemed. The Issuer shall give notice to the Holders in accordance with Section 16 of the General Conditions (*Notices*) designating the early payment date (the "**Early Payment Date**"). In the case of an early redemption the Issuer will cause to be paid to each Holder in respect of each Security held by it an amount equal to the Early Payment Amount (as defined under Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*)), provided that the words "(but ignoring the event which resulted in such early redemption)" shall be deleted). Payment of the Early Payment Amount will be made in such manner as shall be notified to the Holders in accordance with Section 16 of the General Conditions (*Notices*).

13. Definitions

The following terms and expressions shall have the following meanings in relation to Securities to which these Futures Contract Linked Provisions apply:

"**Additional Disruption Event**" means a Change in Law.

"**Bloomberg Screen**" means, in respect of a Reference Asset Price, when used in connection with any designated page, the display page so designated on the Bloomberg® service (or such other page as may replace that page on that service for the purpose of displaying prices comparable to such Reference Asset Price, as determined by the Calculation Agent).

"**Calculation Hours**" has the meaning given to it in the applicable Issue Specific Conditions.

"**CFTC**" means the U.S. Commodity Futures Trading Commission.

"**Change in Law**" means that, on or after the Issue Date of the Securities (a) due to the adoption of or any change in any applicable law or regulation (including, without limitation, any tax law), or (b) due to the promulgation of or any change in the interpretation by any court, tribunal or regulatory authority with competent jurisdiction of any applicable law or regulation (including any action taken by a taxing authority), it has, or it will, within the next 15 calendar days but on or prior to the Maturity Date,

become illegal for any of the Issuer and/or the Hedging Entity and/or any of their respective affiliates to hold, acquire or dispose of any relevant commodity, futures contract, options contract or other asset.

"Disappearance of Reference Asset Price" means:

- (a) the permanent discontinuation of trading, in the relevant Futures Contract on the relevant Trading Facility;
- (b) the disappearance of, or of trading in, the relevant Futures Contract; or
- (c) the disappearance or permanent discontinuance or unavailability of a Reference Asset Price,

notwithstanding the availability of the related price source or the status of trading in the relevant Futures Contract.

"Disrupted Day" means a Scheduled Trading Day on which (i) the Trading Facility is not open for trading during its regular trading session or (ii) on which a Disruption Event occurs.

"Disruption Event" means the occurrence of any of the following events:

- (i) Disappearance of Reference Asset Price;
- (ii) Material Change in Content;
- (iii) Material Change in Formula;
- (iv) Price Source Disruption;
- (v) Trading Disruption;
- (vi) Tax Disruption; and
- (vi) Administrator/Benchmark Event.

"Early Payment Date" has the meaning given thereto in Futures Contract Linked Provision 10 (*Early Redemption*).

"Fallback Valuation Date" means, in respect of a Futures Contract, the date(s) specified as such in the relevant Issue Specific Conditions for any date specified in the relevant Issue Specific Conditions on which the price of such Futures Contract is required to be determined, or, if **"Default Fallback Valuation Date"** is specified in the relevant Issue Specific Conditions, then the Fallback Valuation Date for any date on which the price of such Futures Contract is required to be determined shall be the second Business Day prior to the next following date upon which any payment or delivery of assets may have to be made by the Issuer by reference to the price of such Futures Contract on such day.

"Futures Contract" means the contract specified as such in the relevant Issue Specific Conditions.

"Futures Contract Business Day Convention" means the convention for adjusting any Reference Date or other relevant date if it would otherwise fall on a day that is not a Scheduled Trading Day. If the relevant Issue Specific Conditions specify, in respect of such Reference Date or other date, that:

- (a) **"Following"** shall apply to such Reference Date or other date, then if the Scheduled Reference Date or other scheduled date corresponding to such date is not a Scheduled Trading Day, the Reference Date or other date will be the first following day that is a Scheduled Trading Day;
- (b) **"Modified Following"** shall apply to such Reference Date or other date, then if the Scheduled Reference Date or other scheduled date corresponding to such date is not a Scheduled Trading Day, the Reference Date or other date will be the first following day that is a Scheduled Trading Day, unless that day falls in the next calendar month, in which case that date will be the first preceding day that is a Scheduled Trading Day;
- (c) **"Nearest"** shall apply to such Reference Date or other date, then if the Scheduled Reference Date or other scheduled date corresponding to such date is not a Scheduled Trading Day, the

Reference Date or other date will be (i) the first preceding day that is a Scheduled Trading Day if such date falls on a day other than a Sunday or Monday and (ii) the first following day that is a Scheduled Trading Day if such date falls on a Sunday or Monday;

- (d) **"Preceding"** shall apply to such Reference Date or other date, then if the Scheduled Reference Date or other scheduled date corresponding to such date is not a Scheduled Trading Day, the Reference Date or other date will be the first preceding day that is a Scheduled Trading Day; or
- (e) **"No Adjustment"** shall apply to such Reference Date or other date, then if the Scheduled Reference Date or other scheduled date corresponding to such date is not a Scheduled Trading Day, the Reference Date or other date will nonetheless be such Scheduled Reference Date or other scheduled date.

If the relevant Issue Specific Conditions does not specify an applicable Futures Contract Business Day Convention, then it shall be deemed that "Modified Following" shall apply.

"Futures Contract Hedging Disruption" means that:

- (a) due to (i) the adoption of, or any change in, any applicable law, regulation, rule or order (including, without limitation, any tax law); or (ii) the promulgation of, or any change in, the interpretation, application, exercise or operation by any court, tribunal, regulatory authority, exchange or trading facility or any other relevant entity with competent jurisdiction of any applicable law, rule, regulation, order, decision or determination (including, without limitation, as implemented by the CFTC or exchange or trading facility), in each case occurring on or after the Issue Date the Calculation Agent determines that it is contrary (or, upon adoption, it will be contrary) to such law, rule, regulation, order, decision or determination for the Hedging Entity to purchase, sell, enter into, maintain, hold, acquire or dispose of Underlying Hedge Transactions (in whole or in part) (in the aggregate on a portfolio basis or incrementally on a trade by trade basis) including (without limitation) if such Underlying Hedge Transactions (in whole or in part) (in the aggregate on a portfolio basis or incrementally on a trade by trade basis) are (or, but for the consequent disposal thereof, would otherwise be) in excess of any allowable position limit(s) in relation to any commodity traded on any exchange(s) or other trading facility (it being within the reasonable discretion of the Hedging Entity to determine which of the relevant assets or transactions are counted towards such limit); and/or
- (b) for any reason, the Hedging Entity is unable, after using commercially reasonable efforts, to (i) acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction(s) or asset(s) the Issuer deems necessary to hedge the risk of entering into and performing its futures-contract-related obligations with respect to the Securities, or (ii) realise, recover or remit the proceeds of any such transaction(s) or asset(s).

"Hedging Entity" has the meaning given to it in Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*).

"Material Change in Content" means the occurrence since the Issue Date of a material change in the content, composition or constitution of the relevant Futures Contract.

"Material Change in Formula" means the occurrence since the Issue Date of a material change in the formula for or the method of calculating the relevant Reference Asset Price.

"Maximum Days of Disruption" means five Scheduled Trading Days or such other number of Scheduled Trading Days specified in the relevant Issue Specific Conditions.

"Nearby Month", when preceded by a numerical adjective, means, in respect of a Reference Date or a Scheduled Trading Day, as applicable, the month of expiration of the Futures Contract, as specified in the Issue Specific Conditions, identified by that numerical adjective, so that, for example, (i) "First Nearby Month" means the month of expiration of the first Futures Contract to expire following the Reference Date or Scheduled Trading Day, as applicable; (ii) "Second Nearby Month" means the

month of expiration of the second Futures Contract to expire following the Reference Date or Scheduled Trading Day, as applicable; and (iii) "Sixth Nearby Month" means the month of expiration of the sixth Futures Contract to expire following the Reference Date or Scheduled Trading Day, as applicable.

"Price Source Disruption" means, in respect of a Futures Contract:

- (a) the failure of the Trading Facility to announce or publish the Reference Asset (or the information necessary for determining the Reference Asset Price);
- (b) the temporary or permanent discontinuance or unavailability of the Trading Facility.

"Reference Asset" means the reference asset specified as such in the relevant Issue Specific Conditions.

"Reference Asset Price" means, in respect of a Scheduled Trading Day, the relevant level of that Futures Contract as specified in the relevant Issue Specific Conditions.

"Reference Date" means the Valuation Date and/or any other date specified as such in the relevant Issue Specific Conditions, subject to adjustment in accordance with the relevant Futures Contract Business Day Convention.

"Relevant Month" means the month(s) specified in the applicable Issue Specific Conditions.

"Reuters Screen" means, in respect of a Reference Asset Price, when used in connection with any designated page, the display page so designated on Reuters (or such other page as may replace that page on that service for the purpose of displaying prices comparable to such Reference Asset Price, as determined by the Calculation Agent).

"Rollover" means a rollover of a relevant Futures Contract on its Rollover Date in accordance with Futures Contract Linked Provision 5 (*Rolling Futures Provisions*).

"Rollover Ratio Adjustment Factor" means in the case of Factor Warrants the result of the following calculation:

in the case of Factor Warrants Long

$$\begin{aligned} & \text{Rollover Ratio Adjustment Factor} \\ &= +\text{Leverage Factor} * \text{Ratio}_{old} * \text{Rollover Adjustment Factor} \div RK_{new} \end{aligned}$$

in the case of Factor Warrants Short

$$\begin{aligned} & \text{Rollover Ratio Adjustment Factor} \\ &= -\text{Leverage Factor} * \text{Ratio}_{old} * \text{Rollover Adjustment Factor} \div RK_{new} \end{aligned}$$

"Ratio_{old}" means the Current Ratio on the Rollover Date immediately prior to the adjustment of the Ratio pursuant to Section 7 (2)(a) of the General Conditions (Ratio, Adjustment of Ratio - Ratio Adjustment in the case of Factor Warrants that are not linked to a Factor Index as Reference Asset);

"Leverage Factor" has the meaning given to it in Section 6 (4) of the General Conditions (Strike, Adjustment of Strike - Definitions)

"RK_{new}" corresponds to the Rollover Price for the Futures Contract after the Rollover.

"Rollover Adjustment Factor" means in the case of Factor Warrants the result of the following calculation:

in the case of Factor Warrants Long

$$\text{Rollover Adjustment Factor} = RK_{old} - RK_{new} - \text{Fee} * (|RK_{old}| + |RK_{new}|)$$

in the case of Factor Warrants Short

$$\text{Rollover Adjustment Factor} = RK_{old} - RK_{new} + Fee * (|RK_{old}| + |RK_{new}|)$$

" RK_{old} " corresponds to the Rollover Price for the relevant Futures Contract, as applicable, prior to the Rollover;

" RK_{new} " corresponds to the Rollover Price for the Futures Contract after the Rollover;

"Fee" corresponds to the Transaction Fee.

"Rollover Price" means the rollover price specified in, or determined in the manner prescribed by, the applicable Issue Specific Conditions. The Calculation Agent has the right, through an announcement in accordance with Section 16 of the General Conditions (*Notices*) stating the calendar day on which the change becomes effective and subject to a prior notice period of at least one month, to adjust at its reasonable discretion the applicable timeframe for the calculation and determination of the rollover price for all Futures Contracts (for example, in the case of a change in trading times on the Trading Facility), provided the timeframe in the case of such a change will not exceed three (3) hours.

"Rollover Date" means the rollover date specified in, or determined in the manner prescribed by, the applicable Issue Specific Conditions. Should there be insufficient liquidity in the Reference Asset on the Trading Facility on a rollover date or a comparable unusual market situation in the reasonable discretion of the Calculation Agent, the Calculation Agent is entitled to specify another Scheduled Trading Day as the Rollover Date. The Calculation Agent furthermore has the right, through an announcement in accordance with Section 16 of the General Conditions (*Notices*) stating the calendar day on which the change becomes effective and subject to a prior notice period of at least one month, to determine a different Rollover Date in its reasonable discretion. This is particularly the case when the rules affecting the determination of the Rollover Date are changed at the Trading Facility. If the effective date falls on a Rollover Date, the Settlement Amount shall be determined on the basis of the Rollover Price for the current Futures Contract on the Rollover Date prior to the Rollover and on the basis of the Current Strike on the Rollover Date prior to the adjustment made pursuant to Futures Contract Linked Provision 5 (*Rolling Futures Provisions*).

"Scheduled Reference Date" means any original date that, but for the occurrence of an event causing a Disrupted Day, would have been the Reference Date.

"Scheduled Trading Day" means, in respect of a Futures Contract, a day on which the relevant Trading Facility on which such Futures Contract is traded is scheduled to be open for trading for its regular trading session, notwithstanding any such Trading Facility closing prior to its scheduled closing time.

"Screen Page" means, in respect of a Reference Asset Price, the Bloomberg Screen page and/or the Reuters Screen page and/or such other screen page of such other information provider, on which relevant information for such Reference Asset Price is reported or published, as is specified in the relevant Issue Specific Conditions.

"Tax Disruption" means, in respect of a Futures Contract, the imposition of, change in or removal of an excise, severance, sales, use, value-added, transfer, stamp, documentary, recording or similar tax on, or measured by reference to, such Futures Contract (other than a tax on, or measured by reference to overall gross or net income) by any government or taxation authority after the Issue Date if the direct effect of such imposition, change, or removal is to raise or lower the Reference Asset Price on the day that would otherwise be a Reference Date or any other relevant date, as determined by the Calculation Agent, from what it would have been without that imposition, change, or removal.

"Trading Disruption" means the material suspension of, or the material limitation imposed on, trading in the Futures Contract on the Trading Facility as determined by the Calculation Agent. For these purposes:

- (a) a suspension of the trading in the Futures Contract on any relevant Reference Date or any other relevant date, as determined by the Calculation Agent, shall be deemed to be material only if:
 - (i) all trading in the Futures Contract is suspended for the entire Reference Date or other relevant date; or

- (ii) all trading in the Futures Contract is suspended subsequent to the opening of trading on the Reference Date or other relevant date, trading does not recommence prior to the regularly scheduled close of trading in such Futures Contract on such Reference Date or other relevant date and such suspension is announced less than one-hour preceding its commencement; and
- (b) a limitation of trading in the Futures Contract on any Reference Date or any other relevant date, as determined by the Calculation Agent, shall be deemed to be material only if the relevant Trading Facility establishes limits on the range within which the price of the Futures Contract may fluctuate and the closing or settlement price of the Futures Contract on such day is at the upper limit of that range or at the lower limit of that range.

"Trading Facility" means the exchange or trading facility or principal trading market as specified in the relevant Issue Specific Conditions or, in each case, any successor to such exchange or trading facility or principal trading market to which trading in the relevant Futures Contract has temporarily relocated, as determined, in its reasonable discretion, by the Calculation Agent.

"Transaction Fee" means initially the Initial Transaction Fee specified in the relevant Issue Specific Conditions (the **"Initial Transaction Fee"**). The Calculation Agent is entitled to adjust the Transaction Fee up to the Maximum Transaction Fee specified in the relevant Issue Specific Conditions (the **"Maximum Transaction Fee"**). The adjustment of the Transaction Fee and the effective date of the adjustment are announced pursuant to Section 16 of the General Conditions (*Notices*).

"Underlying Hedge Transactions" has the meaning given to it in Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*).

E. FX LINKED PROVISIONS

These FX Linked Provisions shall apply to Securities for which the relevant Issue Specific Conditions specify that the FX Linked Provisions are applicable.

1. Consequences of Disrupted Days

If the Calculation Agent determines that any Reference Date is a Disrupted Day, and, if in the relevant Issue Specific Conditions the consequence specified is:

- (a) **"Calculation Agent Determination"**, then the Calculation Agent will, in its reasonable discretion, determine the Reference Asset Price (or a method for determining a Reference Asset Price), taking into consideration the latest available quotation for the relevant price of the FX Rate, the relevant market conditions at the time of the relevant determination and any other information that it deems relevant on such Reference Date;
- (b) **"Postponement"**, then the Reference Date for such FX Rate shall be the first succeeding Scheduled Trading Day in respect of the FX Rate that the Calculation Agent determines is not a Disrupted Day in respect of such FX Rate, unless the Calculation Agent determines that each of the consecutive Scheduled Trading Days in respect of the FX Rate equal in number to the Maximum Days of Disruption in respect of such FX Rate immediately following the Scheduled Reference Date is a Disrupted Day for such FX Rate. In that case:
 - (i) the last consecutive Scheduled Trading Day shall be deemed to be the Reference Date for such FX Rate, notwithstanding the fact that such day is a Disrupted Day for such FX Rate; and
 - (ii) the Calculation Agent shall, in its reasonable discretion, determine the level of the FX Rate (as of the Valuation Time) on that last consecutive Scheduled Trading Day, taking into account any relevant market conditions at the time of such determination, and such value as determined by the Calculation Agent pursuant to this paragraph (ii) shall be deemed to be the Reference Asset Price in respect of the relevant Reference Date,

provided that if the Calculation Agent determines that the Reference Asset Price cannot be determined by applying any of the applicable fallbacks above, the Calculation Agent may determine that the Securities shall be early redeemed. The Issuer shall give notice to the Holders in accordance with Section 16 of the General Conditions (*Notices*) designating the early payment date (the **"Early Payment Date"**). In the case of an early redemption the Issuer will cause to be paid to each Holder in respect of each Security held by it an amount equal to the Early Payment Amount (as defined under Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*)), provided that the words "(but ignoring the event which resulted in such early redemption)" shall be deleted). Payment of the Early Payment Amount will be made in such manner as shall be notified to the Holders in accordance with Section 16 of the General Conditions (*Notices*).

2. Administrator/Benchmark Event on non-Reference Dates

If the Calculation Agent determines that an Administrator/Benchmark Event has occurred or is in existence in respect of the Securities on any day that is not a Reference Date during the term of the Securities, the Calculation Agent may determine that the Securities shall be early redeemed. The Issuer shall give notice to the Holders in accordance with Section 16 of the General Conditions (*Notices*) designating the early payment date (the "Early Payment Date"). In the case of an early redemption the Issuer will cause to be paid to each Holder in respect of each Security held by it an amount equal to the Early Payment Amount (as defined under Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*)), provided that the words "(but ignoring the event which resulted in such early redemption)" shall be deleted). Payment of the Early Payment Amount will be made in such manner as shall be notified to the Holders in accordance with Section 16 of the General Conditions (*Notices*).

3. Fallback Valuation Date

Notwithstanding any other terms of these FX Linked Provisions, if a Fallback Valuation Date is specified in the relevant Issue Specific Conditions to be applicable to any Reference Date (any such date, being a **"Relevant**

Date") for an FX Rate, and if, following adjustment of such Relevant Date on account of the original date on which such Relevant Date is scheduled to fall not being a Scheduled Trading Day the Relevant Date would otherwise fall after the specified Fallback Valuation Date in respect of such FX Rate, then such Fallback Valuation Date shall be deemed to be such Relevant Date for such FX Rate.

If such Fallback Valuation Date is not a Scheduled Trading Day or is a Disrupted Day in respect of such FX Rate, as the case may be, then the Calculation Agent shall determine in its reasonable discretion the value for such FX Rate on such Fallback Valuation Date.

4. Corrections to Published and Displayed Rates

- (a) In any case where an FX Rate is based on information obtained from the Reuters Monitor Money Rates Service, or any other financial information service, the FX Rate will be subject to the corrections, if any, to that information subsequently displayed by that source within one hour of the time when such rate is first displayed by such source, unless the Calculation Agent determines in its reasonable discretion that it is not practicable to take into account such correction.
- (b) Notwithstanding FX Linked Provision 4(a) above, in any case where the FX Rate is based on information published or announced by any governmental authority in a relevant country, the FX Rate will be subject to the corrections, if any, to that information subsequently published or announced by that source within five days of the relevant Reference Date unless the Calculation Agent determines in its reasonable discretion that it is not practicable to take into account such correction.

5. Successor Currency

Where the relevant Issue Specific Conditions specify that "**Successor Currency**" is applicable in respect of an FX Rate, then:

- (a) each Reference Currency will be deemed to include any lawful successor currency to the Reference Currency (the "**Successor Currency**");
- (b) if the Calculation Agent determines that on or after the Issue Date but on or before any relevant date under the Securities on which an amount may be payable, a country has lawfully eliminated, converted, redenominated or exchanged its currency in effect on the Issue Date or any Successor Currency, as the case may be (the "**Original Currency**") for a Successor Currency, then for the purposes of calculating any amounts of the Original Currency or effecting settlement thereof, any Original Currency amounts will be converted to the Successor Currency by multiplying the amount of Original Currency by a ratio of Successor Currency to Original Currency, which ratio will be calculated on the basis of the exchange rate set forth by the relevant country of the Original Currency for converting the Original Currency into the Successor Currency on the date on which the elimination, conversion, redenomination or exchange took place, as determined by the Calculation Agent in its reasonable discretion. If there is more than one such date, the date closest to such relevant date will be selected (or such other date as may be selected by the Calculation Agent in its reasonable discretion);
- (c) notwithstanding paragraph (b) above but subject to paragraph (d) below, the Calculation Agent may (to the extent permitted by the applicable law) select such other exchange rate or other basis for the conversion of an amount of the Original Currency to the Successor Currency and, will make such adjustment(s) that it determines to be appropriate, if any, to any variable, calculation methodology, valuation, settlement, payment terms or any other terms in respect of the Securities to account for such elimination, conversion, redenomination or exchange of the Reference Currency; and
- (d) notwithstanding the foregoing provisions, with respect to any Reference Currency that is substituted or replaced by the euro, the consequences of such substitution or replacement will be determined in accordance with applicable law.

Upon making any adjustment in accordance with paragraph (c) above, the Calculation Agent shall give notice as soon as practicable to the Holders stating the adjustment to any variable, calculation methodology, valuation, settlement, payment terms or any other terms in respect of the Securities, as applicable, and/or any of the other relevant terms and giving brief details of the adjustment, provided that any failure to give such notice shall not affect the validity of the adjustment or any action taken.

If the Calculation Agent determines in its reasonable discretion that no adjustment it could make under this FX Linked Provision 5 would produce a commercially reasonable result, it may direct the Issuer to redeem the FX Linked Securities under FX Linked Provision 9 (*Early Redemption*) below.

6. **Rebasing of Securities**

- (a) If the relevant Issue Specific Conditions specify that "**Rebasing**" is applicable, then if, on or prior to any Reference Date or any other relevant date, the Calculation Agent is unable to obtain a value for an FX Rate (because the Reference Currency and/or Base Currency ceases to exist, or for any other reason other than a temporary disruption, as determined by the Calculation Agent), the Calculation Agent may rebase the Securities against another foreign exchange rate determined by the Calculation Agent to be a comparable foreign exchange rate.
- (b) If the Calculation Agent determines that there is not such a comparable foreign exchange rate, the Calculation Agent may direct the Issuer to redeem the FX Linked Securities under FX Linked Provision 9 (*Early Redemption*) below.

7. **Substitute FX Rate Sponsor**

If the FX Rate or any relevant rate or price in respect of the relevant FX Rate is or are no longer calculated and published by the FX Rate Sponsor, but by a different person, company, or institution which the Calculation Agent considers suitable in its reasonable discretion (the "**Substitute FX Rate Sponsor**"), the level in respect of an FX Rate shall be calculated based on the corresponding price calculated and published by the Substitute FX Rate Sponsor for that FX Rate. The Calculation Agent is also entitled to replace the FX Rate Sponsor by a Substitute FX Rate Sponsor if the Calculation Agent determines in its reasonable discretion that the determination method and/or the relevant concept (including the publication of the relevant rates and prices) for the FX Rate has been materially changed.

If the Calculation Agent determines, in its reasonable discretion, that an entity is not a suitable successor to the FX Rate Sponsor or there is no suitable successor to the FX Rate Sponsor available, it may direct the Issuer to redeem the FX Linked Securities under FX Linked Provision 9 (*Early Redemption*) below.

8. **Consequences of Additional Disruption Events**

Following the determination by the Calculation Agent that an Additional Disruption Event has occurred, the Calculation Agent may, in its reasonable discretion:

- (a) determine to make such adjustment to the exercise, settlement, payment or any other terms of the Securities as the Calculation Agent determines appropriate to account for such Additional Disruption Event; and/or
- (b) may direct the Issuer to redeem the FX Linked Securities under FX Linked Provision 9 (*Early Redemption*) below.

9. **Early Redemption**

If following the occurrence of any of the relevant events listed in the provisions above, the Calculation Agent has directed the Issuer to redeem the Securities, the Issuer shall, within one month following the occurrence of the relevant event, give notice to the Holders in accordance with Section 16 of the General Conditions (*Notices*) designating the early payment date (the "**Early Payment Date**"). On the Early Payment Date, the Issuer shall redeem all, but not some only, of the Securities and it shall pay an amount equal to the Early Payment Amount (as defined under Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*)), provided that the words "(but ignoring the event which resulted in such early redemption)" shall be deleted) to each Holder in respect of each Security held by it. Payment of the Early Payment Amount will be made in such manner as shall be notified to the Holders in accordance with Section 16 of the General Conditions (*Notices*).

10. **Changes to the FX Rate**

If the methodology or formula for the FX Rate of any Securities or any other means of calculating the FX Rate is changed (irrespective of the materiality of any such change or changes), then for the avoidance of doubt

references to the FX Rate in respect of such Securities shall remain as the FX Rate notwithstanding such changes.

11. Non-compliant Fallbacks

Notwithstanding anything else in these FX Linked Provisions, if, in respect of the Securities, it (a) is or would be unlawful at any time under any applicable law or regulation or (b) would contravene any applicable licensing requirements, in each case, for the Calculation Agent to determine the Reference Asset Price or make any other determination in respect of the Securities which it would otherwise be obliged to do so under these FX Linked Provisions (or it would be unlawful or would contravene those licensing requirements were a determination to be made at such time), then (where no other applicable provision in these FX Linked Provisions results in such determination being made) the Calculation Agent may determine that the Securities shall be early redeemed. The Issuer shall give notice to the Holders in accordance with Section 16 of the General Conditions (*Notices*) designating the early payment date (the "Early Payment Date"). In the case of an early redemption the Issuer will cause to be paid to each Holder in respect of each Security held by it an amount equal to the Early Payment Amount (as defined under Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*), provided that the words "(but ignoring the event which resulted in such early redemption)" shall be deleted). Payment of the Early Payment Amount will be made in such manner as shall be notified to the Holders in accordance with Section 16 of the General Conditions (*Notices*).

12. Definitions

"**Additional Disruption Event**" means a Change in Law.

"**Banking Restrictions**" means any suspension or a material restriction of banking transactions in the Reference Country or the Base Country.

"**Base Country**" means the country or jurisdiction, or a group of countries or jurisdictions, which support the public authority, institution or other entity issuing the Base Currency, as determined, in its reasonable discretion, by the Calculation Agent.

"**Base Currency**" means, the currency specified as such in the relevant Issue Specific Conditions.

"**Calculation Hours**" has the meaning given to it in the applicable Issue Specific Conditions.

"**Change in Law**" means that, on or after the Issue Date of the Securities (a) due to the adoption of or any change in any applicable law or regulation (including, without limitation, any tax law), or (b) due to the promulgation of or any change in the interpretation by any court, tribunal or regulatory authority with competent jurisdiction of any applicable law or regulation (including any action taken by a taxing authority), it has, or it will, within the next 15 calendar days but on or prior to the Maturity Date, become illegal to hold, acquire or dispose of any relevant currency or assets.

"**Cross-Rate Disruption**" means in the case of a determination of the price of the relevant FX Rate by way of a cross rate calculation, the suspension or restriction of foreign exchange trading in at least one of the currencies of the currency pairs used for the cross rate calculation (including options or futures contracts) and/or the restriction of the convertibility of the currencies or currency pairs and/or the economic impossibility to obtain a conversion rate for any relevant currencies.

"**Disrupted Day**" means any day on which a Disruption Event in respect of such FX Rate occurs.

"**Disruption Event**" means the occurrence or existence, as determined by the Calculation Agent, of any Price Source Disruption, Banking Restrictions, Nationalisation Event, Non-Transferability Event, Transaction Restrictions, Trading Restrictions, Governmental Authority Default, Cross-Rate Disruption, any Inconvertibility Event and/or any Administrator/Benchmark Event.

"**Early Payment Date**" has the meaning given thereto in FX Linked Provision 8 (*Early Redemption*).

"**Fallback Valuation Date**" means, in respect of any FX Rate, the date(s) specified as such in the relevant Issue Specific Conditions for any date specified in the relevant Issue Specific Conditions on which the FX Rate is required to be determined, or, if "**Default Fallback Valuation Date**" is specified in the relevant Issue Specific

Conditions, then the Fallback Valuation Date for any date on which the FX Rate is required to be determined shall be the second Business Day prior to the next following date upon which any payment may have to be made by the Issuer by reference to the FX Rate on such day.

"FX Business Day Convention" means the convention for adjusting any Reference Date or other relevant date if it would otherwise fall on a day that is not a Scheduled Trading Day. If the relevant Issue Specific Conditions specify, in respect of such Reference Date or other date (any such date, being a **"Relevant Date"**), that:

- (a) **"Following"** shall apply to such Relevant Date, then if the Scheduled Reference Date or other scheduled date corresponding to such date (any such scheduled date, being a **"Scheduled Relevant Date"**) is not a Scheduled Trading Day, the Relevant Date will be the first following day that is a Scheduled Trading Day;
- (b) **"Modified Following"** shall apply to such Relevant Date, then if the Scheduled Relevant Date is not a Scheduled Trading Day, the Relevant Date will be the first following day that is a Scheduled Trading Day unless that day falls in the next calendar month, in which case that date will be the first preceding day that is a Scheduled Trading Day;
- (c) **"Nearest"** shall apply to such Relevant Date, then if the Scheduled Relevant Date is not a Scheduled Trading Day, the Relevant Date will be (i) the first preceding day that is a Scheduled Trading Day if such date falls on a day other than a Sunday or Monday and (ii) the first following day that is a Scheduled Trading Day if such date otherwise falls on a Sunday or Monday;
- (d) **"Preceding"** shall apply to such Relevant Date, then if the Scheduled Relevant Date is not a Scheduled Trading Day, the Relevant Date will be the first preceding day that is a Scheduled Trading Day; or
- (e) **"No Adjustment"** shall apply to such Relevant Date or other date, then if the Scheduled Relevant Date is not a Scheduled Trading Day, the Relevant Date will nonetheless be such Scheduled Relevant Date.

If the relevant Issue Specific Conditions do not specify an applicable FX Business Day Convention, then it shall be deemed that **"Following"** shall apply.

"FX Financial Centres" means, in respect of each FX Rate, the financial centre(s) specified in the relevant Issue Specific Conditions.

"FX Rate" means the foreign exchange rate specified as such in the relevant Issue Specific Conditions.

"FX Rate Sponsor" means the entity specified as such in the relevant Issue Specific Conditions.

"Governmental Authority" means any de facto or de jure government (or any agency or instrumentality thereof), court, tribunal, administrative, executive, legislative or other governmental authority, or any other entity (private or public) charged with the regulation of the financial markets (including the central bank) of a Reference Country (which with respect to the Euro shall include the European Union as well as any member state thereof from time to time whose currency is the Euro).

"Governmental Authority Default" means a default, event of default, or other similar condition or event (however described) with respect to any security or indebtedness for borrowed money of, or guaranteed by, any Governmental Authority, including, but not limited to, (i) the failure of timely payment in full of any principal, interest, or other amounts due (without giving effect to any applicable grace periods) in respect of any such security, indebtedness, or guarantee, (ii) a declared moratorium, standstill, waiver, deferral, repudiation, challenge of the validity, or rescheduling of any principal, interest, or other amounts due in respect of any such security, indebtedness, or guarantee, or (iii) the amendment or modification of the terms and conditions of payment of any principal, interest, or other amounts due in respect of any such security, indebtedness, or guarantee without the consent of all holders of such obligation. For these purposes, the determination of the existence or occurrence of any default, event of default, or other similar condition or event shall be made without regard to any lack or alleged lack of authority or capacity of such Governmental Authority to issue or enter into such security, indebtedness, or guarantee.

"Hedging Entity" has the meaning given to it in Section 10(7) of the General Conditions (*Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination – Definitions*).

"Inconvertibility Event" means, in respect of an FX Rate and any relevant day, the occurrence of an event that generally makes it impossible to convert any Reference Currency into the Base Currency, or the Base Currency to the Reference Currency, through customary legal channels.

"Maximum Days of Disruption" means five Scheduled Trading Days or such other number of Scheduled Trading Days (or other type of days) specified in the relevant Issue Specific Conditions.

"Nationalisation Event" means any expropriation, confiscation, requisition, nationalisation or other action by a relevant governmental authority which deprives JPMorgan Chase of all or substantially all of its assets in any relevant jurisdiction.

"Non-Transferability Event" means an event that generally makes it impossible to deliver (i) the Base Currency from accounts inside the Reference Country to accounts outside the Reference Country or (ii) the Base Currency between accounts inside the Reference Country for the Reference Currency or to a party that is a non-resident of the Reference Country.

"Price Source Disruption" means it becomes impossible or otherwise impracticable to obtain the FX Rate on any relevant day (or if different, the day on which rates for that day would, in the ordinary course, be published or announced by the relevant FX Rate Sponsor).

"Reference Asset" means the reference asset specified as such in the relevant Issue Specific Conditions.

"Reference Asset Price" means, in respect of a Scheduled Trading Day, the relevant rate of that FX Rate as specified in the relevant Issue Specific Conditions.

"Reference Country" means the country or jurisdiction, or a group of countries or jurisdictions, which support the public authority, institution or other entity issuing the Reference Currency, as determined, in its reasonable discretion, by the Calculation Agent.

"Reference Currency" means the currency specified as such in the relevant Issue Specific Conditions.

"Reference Date" means, in respect of an FX Rate, each date specified as such or otherwise determined as provided in the relevant Issue Specific Conditions in each case, subject to adjustment in accordance with the relevant FX Business Day Convention.

"Scheduled Reference Date" means any original date that, but for the occurrence of an event causing a Disrupted Day, would have been the Reference Date.

"Scheduled Trading Day" means, in respect of an FX Rate, unless otherwise specified in the relevant Issue Specific Conditions, each day (other than Saturday or Sunday) on which commercial banks are open for business (including dealings in foreign exchange in accordance with the practice of the foreign exchange market) in (a) the principal financial centre of the Reference Currency and (b) the FX Financial Centres (if any) specified in the relevant Issue Specific Conditions, unless the relevant Issue Specific Conditions specify **"Default FX Business Day"** to be not applicable, in which case, paragraph (a) shall not apply.

"Trading Restrictions" means the suspension or a material restriction of trading (i) in the relevant Reference Currency or Base Currency, (ii) in futures or option contracts in respect to the relevant Reference Currency or Base Currency on any relevant futures exchange where such contracts are usually traded, (iii) due to the order of a public authority or of any relevant futures exchange or due to a moratorium for banking transactions in the country in which the futures exchanges is domiciled; or (iv) due to other circumstances that are comparable to the aforementioned circumstances.

"Transaction Restrictions" means public or other governmental measures in the Reference Country or the Base Country, or their announcement, through which JPMorgan Chase is negatively affected in its ability to enter into or hold transactions in the relevant Reference Currency or Base Currency.

"Valuation Time" means, in respect of an FX Rate, each time specified as such in the relevant Issue Specific Conditions.

V. FORM OF ISSUE SPECIFIC CONDITIONS

The "Issue Specific Conditions" of the Securities shall, for the relevant series of Securities, supplement and complete the General Conditions. A version of the Issue Specific Conditions, as amended and completed for the specific series of Securities, will be replicated in the applicable Final Terms. The Issue Specific Conditions as replicated in the applicable Final Terms and the General Conditions (including the applicable Reference Asset Linked Conditions) together constitute the "Conditions" of the relevant series of Securities.

The following Issue Specific Conditions are split up into payout specific terms (the "Payout Specific Terms") of the respective type of Securities (Product No. [●] in the Base Prospectus) and the general terms (the "General Terms") which also include the terms in relation to the respective reference asset (the "Reference Asset Specific Terms").

Part A - Payout Specific Terms

Product No. 1. Payout Specific Terms applicable to Warrants

Settlement Amount	<p><i>[In the case of Call Warrants the following provision applies:</i></p> <p>The Settlement Amount equals the amount by which the Final Value exceeds the Strike, multiplied by the Ratio, i.e.</p> <p>Settlement Amount = (Final Value – Strike) x Ratio.]</p> <p><i>[In the case of Put Warrants the following provision applies:</i></p> <p>The Settlement Amount equals the amount by which the Final Value falls short of the Strike, multiplied by the Ratio, i.e.</p> <p>Settlement Amount = (Strike – Final Value) x Ratio.]</p> <p>The Settlement Amount is at least [zero (0)][EUR 0.001] [●].</p>
Final Value	[Reference Asset Price on the Valuation Date] [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Initial Value	[●] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]
Ratio	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Strike	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]

Product No. 2. Payout Specific Terms applicable to Turbo Warrants and/or X-Turbo Warrants

Settlement Amount	<p><i>[In the case of Turbo Long Warrants and/or X-Turbo Long Warrants the following provision applies:</i></p> <p>The Settlement Amount equals, subject to the occurrence of a Knock-Out Event pursuant to Section 5 of the General Conditions (<i>Knock-Out Event and/or Stop-Loss Event</i>), the amount by which the Final Value exceeds the Strike, multiplied by the Ratio, i.e.</p> <p>Settlement Amount = (Final Value – Strike) x Ratio.]</p>
-------------------	--

[In the case of Turbo Short Warrants and/or X-Turbo Short Warrants the following provision applies:

The Settlement Amount equals, subject to the occurrence of a Knock-Out Event pursuant to Section 5 of the General Conditions (*Knock-Out Event and/or Stop-Loss Event*), the amount by which the Final Value falls short of the Strike, multiplied by the Ratio, i.e.

Settlement Amount = (Strike – Final Value) x Ratio.]

The Settlement Amount is at least zero (0).

Final Value	[Reference Asset Price on the Valuation Date] [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Initial Value	[●] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions] [Not applicable]
Knock-Out Barrier	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Knock-Out Observation Date	●
Knock-Out Observation Hours	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Not applicable]
Knock-Out Observation Period	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Not applicable]
Knock-Out Observation Price	[●] [The Knock-Out Observation Price corresponds to the [Final Value on the Valuation Date] [Reference Asset Price on each Scheduled Trading Day that is not a Disrupted Day] [official prices of the Reference Asset [and the x-Index] as continuously determined [at] and published by the [Exchange][Index Sponsor] on each Knock-Out Observation Date].]
Knock-Out Settlement Amount	[Zero (0)] [EUR 0.001] [●]
Ratio	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Strike	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[x-Index]	[●]

Product No. 3. Payout Specific Terms applicable to Unlimited Turbo Warrants and/or BEST Turbo Certificates and/or Unlimited X-Turbo Warrants and/or BEST X-Turbo Certificates

Settlement Amount *[In the case of Unlimited Turbo Long Warrants and/or BEST Turbo Certificates Long and/or Unlimited X-Turbo Long Warrants and/or BEST X-Turbo Certificates Long the following provision applies:*

The Settlement Amount equals, subject to the occurrence of a Knock-Out Event pursuant to Section 5 of the General Conditions (*Knock-Out Event and/or Stop-Loss Event*), the amount by which the Final Value exceeds the Current Strike,

	multiplied by the Ratio, i.e.
	Settlement Amount = (Final Value – Current Strike) x Ratio.]
	<i>[In the case of Unlimited Turbo Short Warrants and/or BEST Turbo Certificates Short and/or Unlimited X-Turbo Short Warrants and/or BEST X-Turbo Certificates Short the following provision applies:</i>
	The Settlement Amount equals, subject to the occurrence of a Knock-Out Event pursuant to Section 5 of the General Conditions (<i>Knock-Out Event and/or Stop-Loss Event</i>), the amount by which the Final Value falls short of the Current Strike, multiplied by the Ratio, i.e.
	Settlement Amount = (Current Strike – Final Value) x Ratio.]
	The Settlement Amount is at least zero (0).
Adjustment Date	[Each Exercise Business Day.][●]
Adjustment Time	●
Final Value	[Reference Asset Price on the Valuation Date] [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Financing Rate Adjustment Percentage]	[●]
First Strike Adjustment Date	●
Initial Financing Spread	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Initial Value	[●] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions] [Not applicable]
Knock-Out Barrier	The Knock-Out Barrier on the Initial Valuation Date is [●][specified in Table 1 in the Annex to the Issue Specific Conditions], i.e. the Knock-Out Barrier on the Initial Valuation Date equals the Strike on the Initial Valuation Date. The Knock-Out Barrier will be adjusted on a regular basis pursuant to Section 8 of the General Conditions (<i>Knock-Out Barrier, Stop-Loss Barrier, Adjustment of Knock-Out Barrier, Adjustment of Stop-Loss Barrier</i>).
Knock-Out Observation Date	●
Knock-Out Observation Hours	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Not applicable]
Knock-Out Observation Period	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Not applicable]
Knock-Out Observation Price	[●] [The Knock-Out Observation Price corresponds to the [Final Value on the Valuation Date] [Reference Asset Price on each Scheduled Trading Day that is not a Disrupted Day] [official prices of the Reference Asset [and the x-Index] as continuously determined [at] and published by the [Exchange][Index Sponsor] on each Knock-Out Observation Date].]

Knock-Out Settlement Amount	[Zero (0)] [EUR 0.001] [●]
Maximum Financing Spread	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Ratio	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Reference Rate]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Reference Rate for the Base Currency]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Reference Rate for the Reference Currency]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Reference Rate Screen Page]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Not applicable]
[Reference Rate Screen Page for the Base Currency]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Reference Rate Screen Page for the Reference Currency]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Strike	The Strike on the Initial Valuation Date is [●][specified in Table 1 in the Annex to the Issue Specific Conditions]. The Strike will be adjusted on a regular basis pursuant to Section 6 of the General Conditions (<i>Strike, Adjustment of Strike</i>).
Strike Rounding Amount	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[x-Index]	[●]

Product No. 4. Payout Specific Terms applicable to Mini Future Warrants and/or Turbo Certificates and/or X-Mini Future Warrants and/or X-Turbo Certificates

Settlement Amount *[In the case of Mini Future Long Warrants and/or Turbo Certificates Long and/or X-Mini Future Long Warrants and/or X-Turbo Certificates Long the following provision applies:*

The Settlement Amount equals, subject to the occurrence of a Stop-Loss Event pursuant to Section 5 of the General Conditions (*Knock-Out Event and/or Stop-Loss Event*), the amount by which the Final Value exceeds the Current Strike, multiplied by the Ratio, i.e.

Settlement Amount = (Final Value – Current Strike) x Ratio.]

[In the case of Mini Future Short Warrants and/or Turbo Certificates Short and/or X-Mini Future Short Warrants and/or X-Turbo Certificates Short the following provision applies:

The Settlement Amount equals, subject to the occurrence of a Stop-Loss Event pursuant to Section 5 of the General Conditions (*Knock-Out Event and/or Stop-Loss Event*), the amount by which the Final Value falls short of the Current

	Strike, multiplied by the Ratio, i.e.
	Settlement Amount = (Current Strike – Final Value) x Ratio.]
	The Settlement Amount is at least zero (0).
Adjustment Date	[Each Exercise Business Day.][●]
Adjustment Time	●
Final Value	[Reference Asset Price on the Valuation Date] [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Financing Rate Adjustment Percentage]	[●]
First Strike Adjustment Date	●
Initial Financing Spread	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Initial Stop-Loss Buffer	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Initial Value	[●] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]
Maximum Financing Spread	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Maximum Stop-Loss Buffer	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Ratio	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Reference Rate]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Reference Rate for the Base Currency]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Reference Rate for the Reference Currency]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Reference Rate Screen Page]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Not applicable]
[Reference Rate Screen Page for the Base Currency]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Reference Rate Screen Page for the Reference Currency]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Stop-Loss Adjustment Date	[Each Exercise Business Day.][●]
Stop-Loss Barrier	The Stop-Loss Barrier on the Initial Valuation Date is [●][specified in Table 1 in the Annex to the Issue Specific Conditions]. The Stop-Loss Barrier will be adjusted on a regular basis pursuant to Section 8 of the General Conditions (<i>Knock-Out Barrier, Stop-Loss Barrier, Adjustment of Knock-</i>

Out Barrier, Adjustment of Stop-Loss Barrier).

Stop-Loss Amount	Barrier	Rounding	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Stop-Loss Observation Date			●
Stop-Loss Observation Hours			[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Not applicable]
Stop-Loss Observation Period			[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Not applicable]
Stop-Loss Observation Price			[●] [The Stop-Loss Observation Price corresponds to the [Final Value on the Valuation Date] [Reference Asset Price on each Scheduled Trading Day that is not a Disrupted Day] [official prices of the Reference Asset [and the x-Index] as continuously determined [at] and published by the [Exchange][Index Sponsor] on each Stop-Loss Observation Date].]
Stop-Loss Rounding	Settlement	Amount	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Stop-Loss Amount]	Settlement	Base	[EUR 0.001] [●] [Not applicable]
Stop-Loss Settlement Period			●
Strike			The Strike on the Initial Valuation Date is [●] [specified in Table 1 in the Annex to the Issue Specific Conditions]. The Strike will be adjusted on a regular basis pursuant to Section 6 of the General Conditions (<i>Strike, Adjustment of Strike</i>).
Strike Rounding Amount			[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[x-Index]			[●]

Product No. 5. Payout Specific Terms applicable to Factor Warrants

Settlement Amount *[In the case of Factor Warrants Long that are not linked to a Factor Index as Reference Asset, the following provision applies:*

The Settlement Amount equals, the amount by which the Final Value exceeds the Current Strike, multiplied by the Current Ratio, i.e.

Settlement Amount = (Final Value – Current Strike) x Current Ratio.]

[In the case of Factor Warrants Short that are not linked to a Factor Index as Reference Asset, the following provision applies:

The Settlement Amount equals the amount by which the Final Value falls short of the Current Strike, multiplied by the Current Ratio, i.e.

Settlement Amount = (Current Strike – Final Value) x Current

Ratio.]

[The Settlement Amount is at least zero (0).]

[In the case of Factor Warrants that are linked to a Factor Index as Reference Asset, the following provision applies:

The Settlement Amount equals the Final Value multiplied by the Ratio [and further multiplied by the [Management Factor]][insert in the case of Factor Warrants with a Quanto feature: Fee Factor]].]

[Adjustment Barrier]

[The Adjustment Barrier on the Initial Valuation Date is [●] [specified in Table 1 in the Annex to the Issue Specific Conditions]. The Adjustment Barrier will be adjusted on a regular basis pursuant to Section 6 of the General Conditions (*Strike, Adjustment of Strike*).]

[Adjustment Amount] Barrier Rounding [●]

[Adjustment Date] Buffer Adjustment [●]

[Adjustment Date] [Each Exercise Business Day][●]

Adjustment Amount Event Termination [EUR 0.001] [●]

Adjustment Time ●

[Fee Factor] [Term-dependent calculation of the Management Fee and the Quanto Fee according to the following formula:

$$\prod_{i=1}^M \frac{1}{(1 + G_{(i)})^{\frac{n_{(i)}}{k}}}$$

where the terms used in the formula have the following meanings:

"**G_(i)**" means the sum of the Management Fee (i) and the Quanto Fee (i), where "i" represents the sequence of natural numbers from 1 to M.

"**M**" means the number of different sums (**G_(i)**) of the Management Fee (i) and the Quanto Fee (i) during the term of the Securities

"**n**" for i=1 means the number of calendar days from (and including) the Initial Valuation Date up to (and including) the calendar day that precedes the effective date of an adjustment of the Management Fee or the adjustment of the Quanto Fee or, if there is no adjustment of the Management Fee or the Quanto Fee during the term of the Securities, up to (and including) the Valuation Date. "**n**" for i+1 means, in each case, the number of calendar days from (and including) the effective date of the adjustment of the Management Fee or the adjustment of the Quanto Fee up to (and including) the calendar day that precedes the effective date of the next

adjustment of the Management Fee or the Quanto Fee or, if there is no further adjustment of the Management Fee or the Quanto Fee during the term of the Securities, up to (and including) the Valuation Date.

"k" means [the number of actual calendar days in the calendar year (actual).] *[insert alternative definition: ●]*

The Fee Factor is commercially rounded to [●] decimal places on a daily basis.] *[insert alternative formula for determination of Fee Factor: ●]*

Final Value	[Reference Asset Price on the Valuation Date] [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Financing Rate Adjustment Percentage]	[●]
[First Observation Date]	[●]
[First Strike Adjustment Date]	[●]
[Initial Adjustment Buffer]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Initial Factor Rate]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Initial Financing Spread]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Initial Management Fee]	[●] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]
[Initial Quanto Fee]	[●] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]
[Initial Roll Spread]	[●]
Initial Value	[●] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]
[Leverage Factor]	[●]
[Management Factor]	[Term-dependent calculation of the Management Fee according to the following formula:

$$\prod_{i=1}^M \frac{1}{(1 + MG_{(i)})^{\frac{n_{(i)}}{k}}}$$

where the terms used in the formula have the following meanings:

"MG_(i)" means the Management Fee (i), where "i" represents the sequence of natural numbers from 1 to M.

	<p>"M" means the number of different Management Fees (i) during the term of the Securities</p> <p>"n" for i=1 means the number of calendar days from (and including) the Initial Valuation Date up to (and including) the calendar day that precedes the effective date of an adjustment of the Management Fee or, if there is no adjustment of the Management Fee during the term of the Securities, up to (and including) the Valuation Date. "n" for i+1 means, in each case, the number of calendar days from (and including) the effective date of the adjustment of the Management Fee up to (and including) the calendar day that precedes the effective date of the next adjustment of the Management Fee or, if there is no further adjustment of the Management Fee during the term of the Securities, up to (and including) the Valuation Date.</p> <p>"k" means [the number of actual calendar days in the calendar year (actual).] [<i>insert alternative definition: •</i>]</p> <p>The Management Factor is commercially rounded to [•] decimal places on a daily basis.] [•]</p>
[Management Fee]	[The Management Fee for i=1 equals the Initial Management Fee. The Issuer has the right to adjust the Management Fee with effect on each Business Day up to the level of the Maximum Management Fee. The adjustment of the Management Fee and the effective date of the adjustment are notified in accordance with Section 16 of the General Conditions (<i>Notices</i>). Each reference to the Management Fee (i) in the Conditions is regarded, with the effective date of the adjustment, as a reference to the adjusted Management Fee (i+1).]
[Maximum Adjustment Buffer]	[•] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Maximum Factor Rate]	[•] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Maximum Financing Spread]	[•] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Maximum Management Fee]	[•] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]
[Maximum Roll Spread]	[•]
[Observation Date]	[•]
[Observation Hours]	[•] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Not applicable]
[Observation Period]	[•]
[Observation Price]	[•] [The Observation Price corresponds to the [Final Value on the Valuation Date] [Reference Asset Price on each Scheduled Trading Day that is not a Disrupted Day] [official prices of the Reference Asset as continuously determined [at] and published by the [Exchange][Index Sponsor] on each Observation Date].]

[Quanto Fee]	[The Quanto Fee for $i=1$ equals the Initial Quanto Fee. The Issuer has the right to adjust the Quanto Fee with effect on each Business Day, if in the reasonable discretion of the Calculation Agent this is necessitated by an increase or decrease of the costs to the Issuer arising from the hedging of currency risks, taking into account the interest rate of the Reference Currency, the interest rate for the Specified Currency on which the currency hedge is based, the volatility of the Reference Asset, the volatility of the exchange rate between the Reference Currency and Specified Currency, and the correlation between the price of the Reference Asset and the path of the foreign exchange rate. The adjustment to the Quanto Fee and the effective date of the adjustment are notified in accordance with Section 16 of the General Conditions (<i>Notices</i>). Each reference to the Quanto Fee (i) in the terms and conditions is regarded, with the effective date of the adjustment, as a reference to the adjusted Quanto Fee (i+1).] [●]
Ratio	[The Ratio on the Initial Valuation Date is [●] [specified in Table 1 in the Annex to the Issue Specific Conditions]. The Ratio will be adjusted on a regular basis pursuant to Section 7 of the General Conditions (<i>Ratio, Adjustment of Ratio</i>).] [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Ratio Rounding Amount]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Reference Rate]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Reference Rate for the Base Currency]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Reference Rate for the Reference Currency]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Reference Rate Screen Page]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Not applicable]
[Reference Rate Screen Page for the Base Currency]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Reference Rate Screen Page for the Reference Currency]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Strike]	[The Strike on the Initial Valuation Date is [●] [specified in Table 1 in the Annex to the Issue Specific Conditions]. The Strike will be adjusted on a regular basis pursuant to Section 6 of the General Conditions (<i>Strike, Adjustment of Strike</i>).]
[Strike Rounding Amount]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Value of the Reference Asset]	[●] [As specified in Section 6 (4) of the General Conditions]

Product No. 6. Payout Specific Terms applicable to Discount Certificates

Settlement Amount	<p>The Settlement Amount is:</p> <p>(a) if the Final Value is above or equal to the Cap, the Maximum Amount, or</p> <p>(b) if the Final Value is below the Cap, the Final Value multiplied by the Ratio.</p>
Cap	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Final Value	[Reference Asset Price on the Valuation Date] [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Initial Value	[●] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]
Maximum Amount	[Product of Ratio and Cap] [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Ratio	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]

Product No. 7. Payout Specific Terms applicable to Barrier Discount Certificates

Settlement Amount	<p>The Settlement Amount is:</p> <p>(a) if no Barrier Event has occurred, the Maximum Amount, or</p> <p>(b) if a Barrier Event has occurred, the Final Value multiplied by the Ratio, whereby the Settlement Amount will not exceed the Maximum Amount.</p>
Barrier	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Barrier Observation Date	●
Barrier Observation Hours	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Not applicable]
Barrier Observation Period	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Not applicable]
Barrier Observation Price	[●] [The Barrier Observation Price corresponds to the [Final Value on the Valuation Date] [Reference Asset Price on each Scheduled Trading Day that is not a Disrupted Day] [official prices of the Reference Asset as continuously determined [at] and published by the [Exchange][Index Sponsor] on each Barrier Observation Date].]
Cap	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Final Value	[Reference Asset Price on the Valuation Date] [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]

Initial Value	[●] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]
Maximum Amount	[●] [(Product of the Ratio and the Cap)] [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Ratio	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]

Product No. 8. Payout Specific Terms applicable to Bonus Certificates

Settlement Amount	<p>The Settlement Amount is:</p> <p>(a) if no Barrier Event has occurred, the higher of the following values:</p> <p style="padding-left: 40px;">(i) the Bonus Amount, or</p> <p style="padding-left: 40px;">(ii) the product of the Final Value and the Ratio; or</p> <p>(b) if a Barrier Event has occurred, the product of the Final Value and the Ratio.</p>
Barrier	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Barrier Observation Date	●
Barrier Observation Hours	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Not applicable]
Barrier Observation Period	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Not applicable]
Barrier Observation Price	[●] [The Barrier Observation Price corresponds to the [Final Value on the Valuation Date] [Reference Asset Price on each Scheduled Trading Day that is not a Disrupted Day] [official prices of the Reference Asset as continuously determined [at] and published by the [Exchange][Index Sponsor] on each Barrier Observation Date].]
Bonus Amount	[●] [(Product of the Ratio and the Bonus Level)] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Bonus Level	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Final Value	[Reference Asset Price on the Valuation Date] [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Initial Value	[●] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]
Ratio	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]

Product No. 9. Payout Specific Terms applicable to Reverse Bonus Certificates

Settlement Amount	<p>The Settlement Amount is:</p> <p>(a) if no Barrier Event has occurred, the higher of the following values:</p> <ul style="list-style-type: none"> (i) the Bonus Amount, or (ii) the product of (A) the Ratio and (B) the difference between the Reverse Level and the Final Value; or <p>(b) if a Barrier Event has occurred, the product of (A) the Ratio and (B) the difference between the Reverse Level and the Final Value, whereby the Settlement Amount is at least zero (0).</p>
Barrier	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Barrier Observation Date	●
Barrier Observation Hours	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Not applicable]
Barrier Observation Period	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Not applicable]
Barrier Observation Price	[●] [The Barrier Observation Price corresponds to the [Final Value on the Valuation Date] [Reference Asset Price on each Scheduled Trading Day that is not a Disrupted Day] [official prices of the Reference Asset as continuously determined [at] and published by the [Exchange][Index Sponsor] on each Barrier Observation Date].]
Bonus Amount	[●] [(Product of (A) the Ratio and (B) the difference between the Reverse Level and the Bonus Level)] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Bonus Level	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Final Value	[Reference Asset Price on the Valuation Date] [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Initial Value	[●] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]
Ratio	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Reverse Level	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]

Product No. 10. Payout Specific Terms applicable to Capped Bonus Certificates

Settlement Amount	<p>The Settlement Amount is:</p> <p>(a) if no Barrier Event has occurred, the higher of the following values:</p>
-------------------	---

	(i) the Bonus Amount, or
	(ii) the product of the Final Value and the Ratio; or
	(b) if a Barrier Event has occurred, the product of the Final Value and the Ratio.
	The Settlement Amount in any case will not exceed the Maximum Amount.
Barrier	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Barrier Observation Date	●
Barrier Observation Hours	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Not applicable]
Barrier Observation Period	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Not applicable]
Barrier Observation Price	[●] [The Barrier Observation Price corresponds to the [Final Value on the Valuation Date] [Reference Asset Price on each Scheduled Trading Day that is not a Disrupted Day] [official prices of the Reference Asset as continuously determined [at] and published by the [Exchange][Index Sponsor] on each Barrier Observation Date].]
Bonus Amount	[●] [(Product of the Ratio and the Bonus Level)] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Bonus Level	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Cap	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Final Value	[Reference Asset Price on the Valuation Date] [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Initial Value	[●] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]
Maximum Amount	[●] [(Product of the Ratio and the Cap)] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Ratio	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]

Product No. 11. Payout Specific Terms applicable to Capped Reverse Bonus Certificates

Settlement Amount	The Settlement Amount is:
	(a) if no Barrier Event has occurred, the higher of the following values:
	(i) the Bonus Amount, or
	(ii) the product of (A) the Ratio and (B) the difference between the Reverse Level and the

Final Value; or

(b) if a Barrier Event has occurred, the product of (A) the Ratio and (B) the difference between the Reverse Level and the Final Value, whereby the Settlement Amount is at least zero (0).

The Settlement Amount in any case will not exceed the Maximum Amount.

Barrier	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Barrier Observation Date	●
Barrier Observation Hours	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Not applicable]
Barrier Observation Period	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Not applicable]
Barrier Observation Price	[●] [The Barrier Observation Price corresponds to the [Final Value on the Valuation Date] [Reference Asset Price on each Scheduled Trading Day that is not a Disrupted Day] [official prices of the Reference Asset as continuously determined [at] and published by the [Exchange][Index Sponsor] on each Barrier Observation Date].]
Bonus Amount	[●] [(Product of (A) the Ratio and (B) the difference between the Reverse Level and the Bonus Level)] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Bonus Level	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Cap	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Final Value	[Reference Asset Price on the Valuation Date] [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Initial Value	[●] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]
Maximum Amount	[●] [(Product of (A) the Ratio and (B) the difference between the Reverse Level and the Cap)] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Ratio	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Reverse Level	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]

Product No. 12. Payout Specific Terms applicable to Reverse Convertibles

Settlement Amount

The Settlement Amount is:

[insert in the case of Reverse Convertibles that provide for

cash settlement in all cases:

(a) if the Final Value is equal to or above the Strike, the [Nominal][Calculation Amount]; or

[(b) if the Final Value is below the Strike, the [Nominal][Calculation Amount] multiplied by the Performance of the Reference Asset.]

[(b) if the Final Value is below the Strike, the Ratio multiplied by the Final Value.]]

[insert in the case of Reverse Convertibles that may provide for physical settlement:

(a) if the Final Value is equal to or above the Strike, the [Nominal][Calculation Amount]; or

(b) if the Final Value is below the Strike, a quantity of [the Reference Asset] [shares of an Exchange Traded Fund] expressed by the Number of Reference Assets.]

[Calculation Amount]	[●]
[Coupon]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Coupon Amount]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Final Value	[Reference Asset Price on the Valuation Date] [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Initial Value	[●] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]
[Nominal]	[●]
[Performance of the Reference Asset]	[Final Value divided by the [Initial Value][Strike]] [●]
[Ratio]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Share of an Exchange Traded Fund]	[●]
Strike	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]

Product No. 13. Payout Specific Terms applicable to Barrier Reverse Convertibles

Settlement Amount The Settlement Amount is:

[insert in the case of Barrier Reverse Convertibles that provide for cash settlement in all cases:

(a) if the Final Value is equal to or above the Strike, the [Nominal][Calculation Amount];

	(b) if the Final Value is below the Strike, but no Barrier Event has occurred, the [Nominal][Calculation Amount]; or
	[(c) if the Final Value is below the Strike and a Barrier Event has occurred, the product of the [Nominal][Calculation Amount] and the Performance of the Reference Asset.]
	[(c) if the Final Value is below the Strike and a Barrier Event has occurred, the Ratio multiplied by the Final Value.]]
	<i>[insert in the case of Barrier Reverse Convertibles that may provide for physical settlement:</i>
	(a) if the Final Value is equal to or above the Strike, the [Nominal][Calculation Amount];
	(b) if the Final Value is below the Strike, but no Barrier Event has occurred, the [Nominal][Calculation Amount]; or
	(c) if the Final Value is below the Strike and a Barrier Event has occurred, a quantity of [the Reference Asset] [shares of an Exchange Traded Fund] expressed by the Number of Reference Assets.]
Barrier	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Barrier Observation Date	●
Barrier Observation Hours	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Not applicable]
Barrier Observation Period	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Not applicable]
Barrier Observation Price	[●] [The Barrier Observation Price corresponds to the [Final Value on the Valuation Date] [Reference Asset Price on each Scheduled Trading Day that is not a Disrupted Day] [official prices of the Reference Asset as continuously determined [at] and published by the [Exchange][Index Sponsor] on each Barrier Observation Date].]
[Calculation Amount]	[●]
[Coupon]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Coupon Amount]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Final Value	[Reference Asset Price on the Valuation Date] [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Initial Value	[●] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]
[Nominal]	[●]
[Performance of the Reference Asset]	[Final Value divided by the [Initial Value][Strike]] [●]

[Ratio] [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]

[Share of an Exchange Traded Fund] [●]

Strike [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]

Product No. 14. Payout Specific Terms applicable to Open End Certificates

Settlement Amount The Settlement Amount equals

[insert in the case of Open End Certificates with Nominal and/or Calculation Amount: the Performance of the Reference Asset multiplied by the [Nominal][Calculation Amount], then multiplied by the [Management Factor][insert in the case of Open End Certificates with a Quanto feature: Fee Factor].]

[insert in the case of Open End Certificates with Ratio: the Final Value multiplied by the [current] Ratio, then multiplied by the [Management Factor][insert in the case of Open End Certificates with a quanto feature: Fee Factor].]

[Calculation Amount] [●]

[Fee Factor] [Term-dependent calculation of the Management Fee and the Quanto Fee according to the following formula:

$$\prod_{i=1}^M \frac{1}{(1 + G_{(i)})^{\frac{n_{(i)}}{k}}}$$

where the terms used in the formula have the following meanings:

"G_(i)" means the sum of the Management Fee (i) and the Quanto Fee (i), where "i" represents the sequence of natural numbers from 1 to M.

"M" means the number of different sums (G_(i)) of the Management Fee (i) and the Quanto Fee (i) during the term of the Securities

"n" for i=1 means the number of calendar days from (and including) the Initial Valuation Date up to (and including) the calendar day that precedes the effective date of an adjustment of the Management Fee or the adjustment of the Quanto Fee or, if there is no adjustment of the Management Fee or the Quanto Fee during the term of the Securities, up to (and including) the Valuation Date. "n" for i+1 means, in each case, the number of calendar days from (and including) the effective date of the adjustment of the Management Fee or the adjustment of the Quanto Fee up to (and including) the calendar day that precedes the effective date of the next adjustment of the Management Fee or the Quanto Fee or, if there is no further adjustment of the Management Fee or the Quanto Fee during the term of the Securities, up to (and

including) the Valuation Date.

"k" means [the number of actual calendar days in the calendar year (actual).] *[insert alternative definition: ●]*

The Fee Factor is commercially rounded to [●] decimal places on a daily basis.] *[insert alternative formula for determination of Fee Factor: ●]*

Final Value [Reference Asset Price on the Valuation Date] [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]

[Initial Management Fee] [●] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]

[Initial Quanto Fee] [●] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]

Initial Value [●] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]

[Management Factor] [Term-dependent calculation of the Management Fee according to the following formula:

$$\prod_{i=1}^M \frac{1}{(1 + MG_{(i)})^{\frac{n_{(i)}}{k}}}$$

where the terms used in the formula have the following meanings:

"MG_(i)" means the Management Fee (i), where "i" represents the sequence of natural numbers from 1 to M.

"M" means the number of different Management Fees (i) during the term of the Securities

"n" for i=1 means the number of calendar days from (and including) the Initial Valuation Date up to (and including) the calendar day that precedes the effective date of an adjustment of the Management Fee or, if there is no adjustment of the Management Fee during the term of the Securities, up to (and including) the Valuation Date. "n" for i+1 means, in each case, the number of calendar days from (and including) the effective date of the adjustment of the Management Fee up to (and including) the calendar day that precedes the effective date of the next adjustment of the Management Fee or, if there is no further adjustment of the Management Fee during the term of the Securities, up to (and including) the Valuation Date.

"k" means [the number of actual calendar days in the calendar year (actual).] *[insert alternative definition: ●]*

The Management Factor is commercially rounded to [●]

	decimal places on a daily basis.] [●]
[Management Fee]	[The Management Fee for $i=1$ equals the Initial Management Fee. The Issuer has the right to adjust the Management Fee with effect on each Business Day up to the level of the Maximum Management Fee. The adjustment of the Management Fee and the effective date of the adjustment are notified in accordance with Section 16 of the General Conditions (<i>Notices</i>). Each reference to the Management Fee (i) in the Conditions is regarded, with the effective date of the adjustment, as a reference to the adjusted Management Fee (i+1).]
[Maximum Management Fee]	[●] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]
[Nominal]	[●]
[Performance of the Reference Asset]	[Final Value divided by the Initial Value][●]
[Quanto Fee]	[The Quanto Fee for $i=1$ equals the Initial Quanto Fee. The Issuer has the right to adjust the Quanto Fee with effect on each Business Day, if in the reasonable discretion of the Calculation Agent this is necessitated by an increase or decrease of the costs to the Issuer arising from the hedging of currency risks, taking into account the interest rate of the Reference Currency, the interest rate for the Specified Currency on which the currency hedge is based, the volatility of the Reference Asset, the volatility of the exchange rate between the Reference Currency and Specified Currency, and the correlation between the price of the Reference Asset and the path of the foreign exchange rate. The adjustment to the Quanto Fee and the effective date of the adjustment are notified in accordance with Section 16 of the General Conditions (<i>Notices</i>). Each reference to the Quanto Fee (i) in the terms and conditions is regarded, with the effective date of the adjustment, as a reference to the adjusted Quanto Fee (i+1).] [●]
[Ratio]	[The Ratio equals ●.] [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Initially the "Ratio" is [●]. The Ratio is adjusted on each Rollover Date in accordance with the Futures Contract Linked Provision 6 ("Ratio Adjustment"). The adjusted Ratio will be commercially rounded to [two][●] decimal places, as the case may be.]

Product No. 15. Payout Specific Terms applicable to Discount Warrants

Settlement Amount	<i>[In the case of Discount Call Warrants the following provision applies:</i>
	The Settlement Amount is determined as follows:
	(a) In case the Final Value is [equal to or] above the Cap the Settlement Amount equals the amount by which the Cap exceeds the Strike, multiplied by the Ratio, i.e.

Settlement Amount = (Cap – Strike) x Ratio. This amount is the maximum amount the Holders may receive.

- (b) In case the Final Value is [equal to or] below the Cap, but higher than the Strike, the Settlement Amount equals the amount by which the Final Value exceeds the Strike, multiplied by the Ratio, i.e.

Settlement Amount = (Final Value – Strike) x Ratio.

- (c) In case the Final Value is equal to or below the Strike, the Settlement Amount is [at least] [zero (0)][EUR 0.001] [●].]

[In the case of Discount Put Warrants the following provision applies:

The Settlement Amount is determined as follows:

- (a) In case the Final Value is [equal to or] below the Floor, the Settlement Amount equals the amount by which the Floor falls short of the Strike, multiplied by the Ratio, i.e.

Settlement Amount = (Strike – Floor) x Ratio. This amount is the maximum amount the Holders may receive.

- (b) In case the Final Value is [equal to or] above the Floor, but lower than the Strike, the Settlement Amount equals the amount by which the Final Value falls short of the Strike, multiplied by the Ratio, i.e.

Settlement Amount = (Strike – Final Value) x Ratio.

- (c) In case the Final Value is equal to or above the Strike, the Settlement Amount is [at least] [zero (0)][EUR 0.001] [●].]

[Cap]	[●] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]
Final Value	[Reference Asset Price on the Valuation Date] [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Floor]	[●] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]
Initial Value	[●] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]
Ratio	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
Strike	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]

Product No. 16. Payout Specific Terms applicable to Closed-End Mini Future Warrants and/or

Closed-End Turbo Certificates and/or Closed-End X-Mini Future Warrants and/or Closed-End X-Turbo Certificates

Settlement Amount

[In the case of Closed-End Mini Future Long Warrants and/or Closed-End Turbo Certificates Long and/or Closed-End X-Mini Future Long Warrants and/or Closed-End X-Turbo Certificates Long the following provision applies:

The Settlement Amount equals, subject to the occurrence of a Stop-Loss Event pursuant to Section 5 of the General Conditions (*Knock-Out Event and/or Stop-Loss Event*), the amount by which the Final Value exceeds the Strike, multiplied by the Ratio, i.e.

$$\text{Settlement Amount} = (\text{Final Value} - \text{Strike}) \times \text{Ratio.}]$$

[In the case of Closed-End Mini Future Short Warrants and/or Closed-End Turbo Certificates Short and/or Closed-End X-Mini Future Short Warrants and/or Closed-End X-Turbo Certificates Short the following provision applies:

The Settlement Amount equals, subject to the occurrence of a Stop-Loss Event pursuant to Section 5 of the General Conditions (*Knock-Out Event and/or Stop-Loss Event*), the amount by which the Final Value falls short of the Strike, multiplied by the Ratio, i.e.

$$\text{Settlement Amount} = (\text{Strike} - \text{Final Value}) \times \text{Ratio.}]$$

The Settlement Amount is at least zero (0).

Final Value

[Reference Asset Price on the Valuation Date] [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]

Initial Value

[●] [As specified in Table 1][2] in the Annex to the Issue Specific Conditions]

Ratio

[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]

Stop-Loss Barrier

The Stop-Loss Barrier is [●][specified in Table 1 in the Annex to the Issue Specific Conditions].

Stop-Loss Observation Date

●

Stop-Loss Observation Hours

[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Not applicable]

Stop-Loss Observation Period

[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions] [Not applicable]

Stop-Loss Observation Price

[●] [The Stop-Loss Observation Price corresponds to the [Final Value on the Valuation Date] [Reference Asset Price on each Scheduled Trading Day that is not a Disrupted Day] [official prices of the Reference Asset [and the x-Index] as continuously determined [at] and published by the [Exchange][Index Sponsor] on each Stop-Loss Observation Date].]

Stop-Loss Rounding	Settlement Amount	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Stop-Loss Amount]	Settlement Base	[EUR 0.001] [●] [Not applicable]
Stop-Loss Settlement Period		●
Strike		The Strike is [●] [specified in Table 1 in the Annex to the Issue Specific Conditions].
[x-Index]		[●]

Product No. 17. Payout Specific Terms applicable to Capital Protected Certificates

Settlement Amount Subject to the payment of the Minimum Amount, the Holder receives a Settlement Amount on the Maturity Date that equals the sum of (a) the product of the [Nominal][Calculation Amount] and the Capital Protection Percentage and (b) the product of (x) the [Nominal][Calculation Amount], (y) the Participation Factor and (z) the difference between the Performance of the Reference Asset and the Capital Protection Percentage, expressed as a formula:

$$\text{Settlement Amount} = [\text{Nominal}][\text{Calculation Amount}] \times \text{Capital Protection Percentage} + [\text{Nominal}][\text{Calculation Amount}] \times \text{Participation Factor} \times (\text{Performance of the Reference Asset} - \text{Capital Protection Percentage})$$

The Settlement Amount is at least equal to the Minimum Amount[, that is equal to the [Nominal][Calculation Amount] multiplied by the Capital Protection Percentage].

[Calculation Amount]	[●]
Capital Protection Percentage	[●]
Final Value	[Reference Asset Price on the Valuation Date] [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Initial Value]	[●] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]
[Minimum Amount]	[●]
[Nominal]	[●]
Participation Factor	[●]
Performance of the Reference Asset	[Final Value divided by the [Initial Value][Strike]] [●]
[Strike]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]

Product No. 18. Payout Specific Terms applicable to Capped Capital Protected Certificates

Settlement Amount	<p>Subject to the payment of the Minimum Amount and/or the Maximum Amount, the Holder receives a Settlement Amount on the Maturity Date that equals the sum of (a) the product of the [Nominal][Calculation Amount] and the Capital Protection Percentage and (b) the product of (x) the [Nominal][Calculation Amount], (y) the Participation Factor and (z) the difference between the Performance of the Reference Asset and the Capital Protection Percentage, expressed as a formula:</p> $\text{Settlement Amount} = [\text{Nominal}][\text{Calculation Amount}] \times \text{Capital Protection Percentage} + [\text{Nominal}][\text{Calculation Amount}] \times \text{Participation Factor} \times (\text{Performance of the Reference Asset} - \text{Capital Protection Percentage})$ <p>The Settlement Amount is at least equal to the Minimum Amount[, that is equal to the [Nominal][Calculation Amount] multiplied by the Capital Protection Percentage]. The Settlement Amount will not exceed the Maximum Amount.</p>
[Calculation Amount]	[●]
Capital Protection Percentage	[●]
Final Value	[Reference Asset Price on the Valuation Date] [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]
[Initial Value]	[●] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]
Maximum Amount	[●]
[Minimum Amount]	[●]
[Nominal]	[●]
Participation Factor	[●]
Performance of the Reference Asset	[Final Value divided by the [Initial Value][Strike]] [●]
[Strike]	[●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]

Product No. 19. Payout Specific Terms applicable to Participation Certificates

Settlement Amount	<p>The Settlement Amount equals</p> <p><i>[insert in the case of Participation Certificates with Nominal and/or Calculation Amount: the Performance of the Reference Asset multiplied by the [Nominal][Calculation Amount], then multiplied by the [Management Factor][insert in the case of Participation Certificates with a Quanto feature: Fee Factor].]</i></p> <p><i>[insert in the case of Participation Certificates with Ratio: the Final Value multiplied by the [current] Ratio, then multiplied by the [Management Factor][insert in the case of</i></p>
-------------------	--

Participation Certificates with a quanto feature: Fee Factor].

[Calculation Amount]

[•]

[Fee Factor]

[Term-dependent calculation of the Management Fee and the Quanto Fee according to the following formula:

$$\prod_{i=1}^M \frac{1}{(1 + G_{(i)})^{\frac{n(i)}{k}}}$$

where the terms used in the formula have the following meanings:

"**G_(i)**" means the sum of the Management Fee (i) and the Quanto Fee (i), where "i" represents the sequence of natural numbers from 1 to M.

"**M**" means the number of different sums (**G_(i)**) of the Management Fee (i) and the Quanto Fee (i) during the term of the Securities

"**n**" for i=1 means the number of calendar days from (and including) the Initial Valuation Date up to (and including) the calendar day that precedes the effective date of an adjustment of the Management Fee or the adjustment of the Quanto Fee or, if there is no adjustment of the Management Fee or the Quanto Fee during the term of the Securities, up to (and including) the Valuation Date. "**n**" for i+1 means, in each case, the number of calendar days from (and including) the effective date of the adjustment of the Management Fee or the adjustment of the Quanto Fee up to (and including) the calendar day that precedes the effective date of the next adjustment of the Management Fee or the Quanto Fee or, if there is no further adjustment of the Management Fee or the Quanto Fee during the term of the Securities, up to (and including) the Valuation Date.

"**k**" means [the number of actual calendar days in the calendar year (actual).] [*insert alternative definition: •*]

The Fee Factor is commercially rounded to [•] decimal places on a daily basis. [*insert alternative formula for determination of Fee Factor: •*]

Final Value

[Reference Asset Price on the Valuation Date] [•] [As specified in Table 1 in the Annex to the Issue Specific Conditions]

[Initial Management Fee]

[•] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]

[Initial Quanto Fee]

[•] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]

Initial Value

[•] [As specified in Table [1][2] in the Annex to the Issue

	Specific Conditions]
[Management Factor]	[Term-dependent calculation of the Management Fee according to the following formula:
	$\prod_{i=1}^M \frac{1}{(1 + MG_{(i)})^{\frac{n_{(i)}}{k}}}$
	where the terms used in the formula have the following meanings:
	"MG _(i) " means the Management Fee (i), where "i" represents the sequence of natural numbers from 1 to M.
	"M" means the number of different Management Fees (i) during the term of the Securities
	"n" for i=1 means the number of calendar days from (and including) the Initial Valuation Date up to (and including) the calendar day that precedes the effective date of an adjustment of the Management Fee or, if there is no adjustment of the Management Fee during the term of the Securities, up to (and including) the Valuation Date. "n" for i+1 means, in each case, the number of calendar days from (and including) the effective date of the adjustment of the Management Fee up to (and including) the calendar day that precedes the effective date of the next adjustment of the Management Fee or, if there is no further adjustment of the Management Fee during the term of the Securities, up to (and including) the Valuation Date.
	"k" means [the number of actual calendar days in the calendar year (actual).] [<i>insert alternative definition: •</i>]
	The Management Factor is commercially rounded to [•] decimal places on a daily basis.] [•]
[Management Fee]	[The Management Fee for i=1 equals the Initial Management Fee. The Issuer has the right to adjust the Management Fee with effect on each Business Day up to the level of the Maximum Management Fee. The adjustment of the Management Fee and the effective date of the adjustment are notified in accordance with Section 16 of the General Conditions (<i>Notices</i>). Each reference to the Management Fee (i) in the Conditions is regarded, with the effective date of the adjustment, as a reference to the adjusted Management Fee (i+1).]
[Maximum Management Fee]	[•] [As specified in Table [1][2] in the Annex to the Issue Specific Conditions]
[Nominal]	[•]

[Performance of the Reference Asset] [Final Value divided by the Initial Value][●]

[Quanto Fee] [The Quanto Fee for i=1 equals the Initial Quanto Fee. The Issuer has the right to adjust the Quanto Fee with effect on each Business Day, if in the reasonable discretion of the Calculation Agent this is necessitated by an increase or decrease of the costs to the Issuer arising from the hedging of currency risks, taking into account the interest rate of the Reference Currency, the interest rate for the Specified Currency on which the currency hedge is based, the volatility of the Reference Asset, the volatility of the exchange rate between the Reference Currency and Specified Currency, and the correlation between the price of the Reference Asset and the path of the foreign exchange rate. The adjustment to the Quanto Fee and the effective date of the adjustment are notified in accordance with Section 16 of the General Conditions (*Notices*). Each reference to the Quanto Fee (i) in the terms and conditions is regarded, with the effective date of the adjustment, as a reference to the adjusted Quanto Fee (i+1).] [●]

[Ratio] [The Ratio equals ●.] [●] [As specified in Table 1 in the Annex to the Issue Specific Conditions]

Part B - General Terms¹

Terms in relation to Security Right, Status, Currency Conversion and Rounding, Definitions (Section 1 of the General Conditions)

Settlement	[Cash Settlement] [Cash Settlement or Physical Settlement]
Currency Conversion	[Applicable][As specified in Table 1 in the Annex to the Issue Specific Conditions][Not applicable]
Aggregation	[Applicable][Not applicable][Aggregation does not apply]
Residual Cash Amount	[●][Not applicable]
Business Day	[●]
Exchange Rate	[●][As specified in Table 1 in the Annex to the Issue Specific Conditions][Not applicable]
Exchange Rate Sponsor	[●][As specified in Table 1 in the Annex to the Issue Specific Conditions][Not applicable]
Initial Valuation Date	●
Maturity Date	●
Number of Reference Assets	[●][[Nominal][Calculation Amount] [converted into the Reference Currency on the basis of the Exchange Rate provided by the Exchange Rate Sponsor on [<i>insert relevant</i>

¹ If a Section in the General Conditions or an Annex to the General Condition is not relevant for a Series of Securities then the respective terms relating to such Section or Annex will not be replicated in the applicable Final Terms and it will be indicated that the respective Section or Annex is "Not applicable".

	<i>date:</i> ●]] divided by [Initial Value][Strike]][Not applicable]
Reference Asset Amount	[●][Rounded Number of Reference Assets to be delivered. The Reference Asset Amount (a) will be determined in respect of each Security without first aggregating the entire holding of Securities held by any Holder, and (b) to be delivered will include only whole shares of the Reference Asset and the Residual Cash Amount will be payable in lieu of any fractional shares of the Reference Asset.][Not applicable]
Reference Currency	[●][As specified in Table 2 in the Annex to the Issue Specific Conditions]
Relevant Exchange Date	[●][Not applicable]
Residual Cash Amount Rounding	[●][Not applicable]
Settlement Amount Rounding	[●][Not applicable]
Specified Currency	[●][Not applicable]
Valuation Date	[●][As specified in Section 1 of the General Conditions][As specified in Table 1 in the Annex to the Issue Specific Conditions][Not applicable]

Terms in relation to Exercise (Section 2 of the General Conditions)

Minimum Exercise Amount	[●][Not applicable]
Maximum Exercise Amount	[●][Not applicable]
[Extraordinary Automatic Exercise]	[Applicable][Not applicable]
Exercise Business Day	●
Exercise Period	[●][As specified in Table 1 in the Annex to the Issue Specific Conditions][Not applicable]
Exercise Style	[European Style][American Style]
Exercise Time	[●][(local time ●)][Not applicable]

Terms in relation to Settlement (Section 3 of the General Conditions)

Payment Day	[●][As specified in Section 3(3) of the General Conditions (<i>Payments on Payment Days</i>)]
Disruption Settlement Amount	[●][Fair Market Value of Security]
Relevant Clearing System	[Clearstream Banking AG, Frankfurt am Main, Mergenthalerallee 61, 65760 Eschborn][●][As specified in Part A (Payout Specific Terms)][As specified in Section 3(11) of the General Conditions (<i>Definitions</i>)]
Relevant Currency	[Specified Currency][●]

Terms in relation to Coupon Payments (Section 4 of the General Conditions)

Coupon Payment	[Not applicable][Applicable]
Coupon	[●][As specified in Table 1 in the Annex to the Issue Specific Conditions][As specified in Part A (Payout Specific Terms)]
Coupon Amount	[●][Not applicable][As specified in Part A (Payout Specific Terms)][As specified in Section 4(3) of the General Conditions (<i>Definitions</i>)]
Coupon Cessation Date	[●][As specified in Table 1 in the Annex to the Issue Specific Conditions][Not applicable]
Coupon Commencement Date	[●][Not applicable]
Coupon Day Count Fraction	[Actual/Actual (ICMA)] [Actual/Actual (ISDA)] [Actual/365 (Fixed)] [Actual/360] [30/360] [360/360] [Bond Basis] [30E/360] [Eurobond Basis] [30E/360 (ISDA)]
Coupon Payment Date	[●][As specified in Table 1 in the Annex to the Issue Specific Conditions][Not applicable]
Coupon Period	[●][Applicable][Not applicable]

Terms in relation to Knock-Out Event and/or Stop-Loss Event (Section 5 of the General Conditions)

[Definitions relating to Section 5 of the General Conditions (*Knock-Out Event and/or Stop-Loss Event*) are set out in the Payout Specific Terms above][Not applicable]

Terms in relation to Strike, Adjustment of Strike (Section 6 of the General Conditions)

[Definitions relating to Section 6 of the General Conditions (*Strike, Adjustment of Strike*) are set out in the Payout Specific Terms above][Not applicable]

Terms in relation to Ratio, Adjustment of Ratio (Section 7 of the General Conditions)

[Definitions relating to Section 7 of the General Conditions (*Ratio, Adjustment of Ratio*) are set out in the Payout Specific Terms above][Not applicable]

Terms in relation to Knock-Out Barrier, Stop-Loss Barrier, Adjustment of Knock-Out Barrier, Adjustment of Stop-Loss Barrier (Section 8 of the General Conditions)

[Definitions relating to Section 8 of the General Conditions (*Knock-Out Barrier, Stop-Loss Barrier, Adjustment of Knock-Out Barrier, Adjustment of Stop-Loss Barrier*) are set out in the Payout Specific Terms above][Not applicable]

Terms in relation to Barrier Event (Section 9 of the General Conditions)

[Definitions relating to Section 9 of the General Conditions (*Barrier Event*) are set out in the Payout Specific Terms above][Not applicable]

Terms in relation to Events of Default, Early Redemption or Termination for Illegality, Extraordinary Hedge Disruption Event, Taxation and Early Redemption, Termination for Taxation or Adjustment Event Termination (Section 10 of the General Conditions)

Termination Event Notice Period	[●][As specified in Section 10(3) of the General Conditions (<i>Early Redemption or Termination for Illegality</i>)] [Not applicable]
Extraordinary Hedge Disruption Event	[Applicable][Not applicable]
Extraordinary Hedge Sanctions Event	[Applicable][Not applicable]
Extraordinary Hedge Bail-in Event	[Applicable][Not applicable]
Extraordinary Hedge Currency Disruption Event	[Applicable][Not applicable]
Gross Up	[Applicable][Not applicable]
Exclude Section 871(m) Taxes from Gross Up	[Applicable][Not applicable]
[871(m) Securities]	[Section 871(m) of the U.S. Internal Revenue Code and the regulations promulgated thereunder [will] [will not] apply to the Securities]
Tax Termination Event Notice Period	[●][As specified in Section 10(5)(c) of the General Conditions (<i>Early Redemption or Termination for Taxation - FATCA</i>)] [Not applicable]
Early Redemption for Tax on Underlying Hedge Transactions	[Applicable][Not applicable]

Terms in relation to Ordinary Termination Right of the Issuer (Section 11 of the General Conditions)

Ordinary Termination Right of the Issuer	[Applicable][Not applicable]
Termination Notice Period	[As specified in Section 11 of the General Conditions][As specified in Table 1 in the Annex to the Issue Specific Conditions][●]

Terms in relation to Holder, Transferability (Section 12 of the General Conditions)

Minimum Trading Size	[The Securities may only be traded in a minimum initial amount of one (1) Security [(corresponding to a Nominal of ●)] and, thereafter, in multiples of one (1) Security [(corresponding to a Nominal of ●)].][●]
----------------------	---

Terms in relation to Agents (Section 13 of the General Conditions)

Calculation Agent	[●] [J.P. Morgan SE, Taunustor 1 (TaunusTurm), 60310 Frankfurt am Main, Germany] [J.P. Morgan Securities plc, 25 Bank Street, Canary Wharf, London E14 5JP, England]
Programme Agent	[●] [BNP Paribas S.A. Germany Branch, Senckenberganlage 19, 60325 Frankfurt am Main, Germany]
Paying Agent	[●] [BNP Paribas S.A. Germany Branch, Senckenberganlage 19, 60325 Frankfurt am Main, Germany]
[Delivery Agent]	[●] [J.P. Morgan SE, Taunustor 1 (TaunusTurm), 60310 Frankfurt am Main, Germany] [J.P. Morgan Securities plc, 25 Bank Street, Canary Wharf, London E14 5JP, England]
Additional Agent(s)	[●] [Not applicable]

Terms in relation to Notices (Section 16 of the General Conditions)

Website	[www.jpmorgan-zertifikate.de][●]
---------	----------------------------------

Reference Asset Linked Terms

SHARE LINKED PROVISIONS

Share Linked Provisions	[Applicable] [Not applicable]
Share	[insert name of Share, Depositary Receipt or share of an Exchange Traded Fund and, if applicable, the manager of the Exchange Traded Fund and the source for further information : ●] [As specified in Table [1] [and] [2] in the Annex to the Issue Specific Conditions] [(Bloomberg Code: ●)[ISIN: ●][Reuters Code: ●]] (the ["Share"] [or] ["Depositary Receipt"] ["Share of Exchange Traded Fund(s)"] or the "Reference Asset")
Exchange Traded Fund	[specify name of Exchange Traded Fund and, if applicable, the manager of the Exchange Traded Fund and the source for further information: ●] [As specified in Table [1] [and] [2] in the Annex to the Issue Specific Conditions] [Not applicable]
Exchange(s)	[●] [As specified in Table 2 in the Annex to the Issue Specific Conditions]
Related Exchange(s)	[●] [All Exchanges] [As specified in Table 2 in the Annex to the Issue Specific Conditions]
Calculation Hours	[●] [As specified in Table 2 in the Annex to the Issue Specific Conditions] [As specified in Share Linked Provision 11] [Not applicable]
Reference Asset Price	[The official closing price of the Reference Asset as determined at and published by the Exchange.] [●]
Valuation Time	[●] [As specified in Share Linked Provision 11]
Reference Date	[Valuation Date] [●]
Maximum Days of Disruption	[Eight Scheduled Trading Days as specified in Share Linked

	Provision 11] [Zero (0)/None] [<i>specify number of days</i> : •]
Fallback Valuation Date	[Applicable: [•] (<i>specify date(s)</i>)] [Default Fallback Valuation Date as specified in Share Linked Provision 11] [Zero (0)/None] [Not applicable]
Share Substitution	[Applicable] [Not applicable]
Insolvency Filing	[Applicable] [Not applicable]
Partial Lookthrough Depository Receipts Provisions	[Applicable to [<i>insert name of Share(s)</i>]] [Not applicable]
Full Lookthrough Depository Receipts Provisions	[Applicable to [<i>insert name of Share(s)</i>]] [Not applicable]
Market Disruption Event – NAV Temporary Publication Suspension (ETF)	[Applicable] [Not applicable]
Extraordinary Events – NAV Publication Suspension (ETF)	[Applicable] [Not applicable]
Extraordinary Events – Underlying Index Cancellation (ETF)	[Applicable] [Not applicable]
Extraordinary Events – Underlying Index Modification (ETF)	[Applicable] [Not applicable]
ETF – Successor Index Event Provision	[Applicable] [Not applicable]

INDEX LINKED PROVISIONS

Index Linked Provisions	[Applicable] [Not applicable]
Index	[<i>insert name of Index</i> : • [As specified in Table [1] [and] [2] in the Annex to the Issue Specific Conditions] [(Bloomberg Code: •)[ISIN: •][Reuters Code: •]] [(the " Index " [or the " Factor Index "] or the " Reference Asset ")]
Type of Index	[Unitary Index] [Multi-Exchange Index] [Factor Index] [As specified in Table 2 in the Annex to the Issue Specific Conditions]
Exchange(s)	[•] [All exchanges where Components are listed] [As specified in Table 2 in the Annex to the Issue Specific Conditions]
Related Exchange(s)	[•] [As specified in Table 2 in the Annex to the Issue Specific Conditions]
Index Sponsor	[•] [As specified in Table 2 in the Annex to the Issue Specific Conditions]
Calculation Hours	[•] [As specified in Table 2 in the Annex to the Issue Specific Conditions] [As specified in Index Linked Provision 10] [Not applicable]
Reference Asset Price	[The official closing price of the Reference Asset as calculated

	and published by the Index Sponsor.] [The [final settlement price] [special opening quotation] of the Index-Linked Derivatives Contract (" Final Settlement Price ") as calculated by the Derivatives Exchange on the Valuation Date. If no Final Settlement Price is available, the Reference Asset Price shall be the Final Index Level (as set out in Index-Linked Provision 10) on the Valuation Date.] [●]
Valuation Time	[●] [As specified in Index Linked Provision 10]
Reference Date	[Valuation Date] [●]
Maximum Days of Disruption	[Eight Scheduled Trading Days as specified in Index Linked Provision 10] [Zero (0)/None] [<i>specify number of days</i> : ●]
Index-Linked Derivatives Contract Provisions	[Applicable] [Not applicable]
Index-Linked Derivatives Contract	[●] [The option contract on the Derivatives Exchange on the Index expiring on the Valuation Date.]
Derivatives Exchange	●
Fallback Valuation Date	[Applicable: [●] (<i>specify date(s)</i>)] [Default Fallback Valuation Date as specified in Index Linked Provision 10] [Zero (0)/None] [Not applicable]

COMMODITY LINKED PROVISIONS

Commodity Linked Provisions	[Applicable] [Not applicable]
Commodity	[<i>insert name of Commodity</i> : ● [As specified in Table [1] [and] [2] in the Annex to the Issue Specific Conditions] [(Bloomberg Code: ●)[ISIN: ●][Reuters Code: ●]] (the " Commodity " or the " Reference Asset ")
Trading Facility	[●] [As specified in Table 2 in the Annex to the Issue Specific Conditions]
Calculation Hours	[●] [As specified in Table 2 in the Annex to the Issue Specific Conditions] [Not applicable]
Reference Asset Price	[The official daily settlement price of the Reference Asset as determined and published by the Trading Facility] [●]
Reference Date	[Valuation Date] [●]
Valuation Time	●
Commodity Business Day Convention	[Following] [Modified Following] [Nearest] [Preceding] [No Adjustment] [Not applicable]
Calculation Agent Determination	[Applicable] [Not applicable]
Postponement	[Applicable] [Not applicable]
Maximum Days of Disruption	[Five Scheduled Trading Days as specified in Commodity Linked Provision 11] [Zero/None] [<i>specify number of days</i> : ●]
Fallback Valuation Date	[Applicable: [●] (<i>specify date(s)</i>)] [Default Fallback Valuation Date as specified in Commodity Linked Provision 11] [Not applicable]

applicable]

Commodity Hedging Disruption [Applicable] [Not applicable] [●]

FUTURES CONTRACT LINKED PROVISIONS

Futures Contract Linked Provisions [Applicable] [Not applicable]

Futures Contract [insert name of Futures Contract: ● [As specified in Table [1] [and] [2] in the Annex to the Issue Specific Conditions] [(Bloomberg Code: ●)[ISIN: ●][Reuters Code: ●]] (the "Futures Contract" or the "Reference Asset")

Trading Facility [●] [As specified in Table 2 in the Annex to the Issue Specific Conditions]

Calculation Hours [●] [As specified in Table 2 in the Annex to the Issue Specific Conditions] [Not applicable]

Reference Asset Price [The official daily settlement price of the Reference Asset as determined and published by the Trading Facility] [●]

Reference Date [Valuation Date] [●]

Futures Contract Business Day Convention [Following] [Modified Following] [Nearest] [Preceding] [No Adjustment] [Not applicable]

Rolling Futures Provisions [Applicable] [Not applicable]

Rollover Date [●] [As specified in Table 2 in the Annex to the Issue Specific Conditions]

Relevant Month [●] [As specified in Table 2 in the Annex to the Issue Specific Conditions]

Strike Adjustment [Applicable] [Not applicable] [●]

Ratio Adjustment [Applicable] [Not applicable] [●]

Transaction Fee Initial Transaction Fee: [●] [As specified in Table 2 in the Annex to the Issue Specific Conditions]

Maximum Transaction Fee: [●] [As specified in Table 2 in the Annex to the Issue Specific Conditions]

Rollover Price [●]

Calculation Agent Determination [Applicable] [Not applicable]

Postponement [Applicable] [Not applicable]

Maximum Days of Disruption [Five Scheduled Trading Days as specified in Futures Contract Linked Provision 13] [Zero (0)/None] [specify number of days: ●]

Fallback Valuation Date [Applicable: [●] (specify date(s))] [Default Fallback Valuation Date as specified in Futures Contract Linked Provision 13] [Zero (0)/None] [Not applicable]

Futures Contract Hedging [Applicable] [Not applicable] [●]

Disruption

FX LINKED PROVISIONS

FX Linked Provisions	[Applicable] [Not applicable]
Foreign Exchange Rate	[insert name of Foreign Exchange Rate: ● [As specified in Table [1] [and] [2] in the Annex to the Issue Specific Conditions] [(Bloomberg Code: ●)[ISIN: ●][Reuters Code: ●]] (the "Foreign Exchange Rate" or the "FX Rate" or the "Reference Asset")
Calculation Hours	[●] [As specified in Table 2 in the Annex to the Issue Specific Conditions] [As specified in FX Linked Provision 12] [Not applicable]
Base Currency	●
Reference Currency	●
FX Rate Sponsor	●
Reference Asset Price	●
Reference Date	[Valuation Date] [●]
Scheduled Trading Day	[As defined in FX Linked Provision 12] [●]
Default FX Business Day	[Applicable] [Not applicable]
Valuation Time	●
FX Business Day Convention	[Following] [Modified Following] [Nearest] [Preceding] [No Adjustment] [Not applicable]
FX Financial Centres	●
Calculation Agent Determination	[Applicable] [Not applicable]
Postponement	[Applicable] [Not applicable]
No Adjustment	[Applicable] [Not applicable]
Maximum Days of Disruption	[Five Scheduled Trading Days as specified in FX Linked Provision 12] [Zero (0)/None] [specify number of days: ●]
Fallback Valuation Date	[Applicable: [●] (specify date(s))] [Default Fallback Valuation Date as specified in FX Linked Provision 12] [Not applicable]
Successor Currency	[Applicable] [Not applicable]
Rebasing	[Applicable] [Not applicable]

Annex to the Issue Specific Conditions

Table 1

[WKN]	[Reference Asset]	[Ratio]	[Bonus Amount]	[Barrier]	[Coupon]	[Initial Stop-Loss Buffer]	[Initial Factor Rate]	[Currency Conversion]	[Valuation Date]
[ISIN]	[Name of Share]	[Ratio Rounding Amount]	[Bonus Level]	[Barrier Observation Period]	[Reference Rate]	[Maximum Stop-Loss Buffer]	[Maximum Factor Rate]	[Exchange Rate]	[Exercise Period]
[additional Securities Identification Number: ●]	[Name of Depository Receipt]	[Strike]	[Cap]	[Barrier Observation Hours]	[Reference Rate for the Base Currency]	[Stop-Loss Settlement Amount Rounding]	[Initial Financing Spread]	[Exchange Rate Sponsor]	[Observation Hours]
	[Name of Share of an Exchange Traded Fund]	[Strike Rounding Amount]	[Maximum Amount]	[Knock-Out Barrier]	[Reference Rate for the Reference Currency]	[Initial Adjustment Buffer]	[Maximum Financing Spread]		[Termination Notice Period]
	[Name of Index]	[Initial Value]	[Reverse Level]	[Knock-Out Observation Period]	[Coupon Amount]		[Reference Rate Screen Page]		
	[Name of Commodity]	[Final Value]		[Knock-Out Observation Hours]	[Coupon Payment Date]	[Maximum Adjustment Buffer]	[Reference Rate Screen Page for the Base Currency]		
	[Name of Futures Contract]	[Specified Currency]		[Stop-Loss Barrier]	[Coupon Cessation Date]		[Reference Rate Screen Page for the Reference Currency]		
	[Name of Foreign Exchange Rate]			[Stop-Loss Barrier Rounding Amount]			[Initial Management]		
				[Stop-Loss Observation Period]					

				[Stop-Loss Observation Hours]			Fee] [Initial Quanto Fee] [Maximum Management Fee]		
[●]	[●]	[●]	[●]	[●]	[●]	[●]	[●]	[●]	[●]

Table 2

[Name of Share] [Name of Depository Receipt] [Name of Share of an Exchange Traded Fund] [Name of Index] [Name of Commodity] [Name of Futures Contract] [Name of Foreign Exchange Rate]	[ISIN]	[Index Sponsor]	[Initial Value]	[Initial Transaction Fee]
	[Bloomberg Code]	[Exchange(s)]	[Reference Currency]	[Maximum Transaction Fee]
	[Reuters Code]	[Trading Facility]	[Initial Management Fee]	[Rollover Date]
	[[Relevant] Screen Page]	[Calculation Hours]	[Initial Quanto Fee]	[Relevant Month]
		[Related Exchange(s)]	[Maximum Management Fee]	
		[Type of Index]		
[●]	[●]	[●]	[●]	[●]

VI. FORM OF FINAL TERMS

FINAL TERMS

dated [●]

J.P. Morgan SE

[Number of Securities (or, insert aggregate nominal amount, in case of percentage pricing): ●]

[insert title of Securities: ●]

[(issued in the form of [Certificates])[Notes][Warrants]]

linked to

[insert Reference Asset: ●]

[ISIN: ●]

[WKN: ●]

[Valor: ●]

[Common Code: ●]

[Additional Securities Identification Number: ●]

[Issue Price: ●]

[insert table with name of Reference Asset, ISIN, WKN, Valor, Common Code as well as additional Securities Identification Number, Issue Price and Number of Securities where applicable: ●]

These Final Terms relate to the Base Prospectus dated 28 September 2023 (as supplemented by the Supplement[s] dated ● and) as [further] supplemented from time to time).

*[In the case of Securities for which a continued public offer is intended following the expiry of the validity of the Base Prospectus dated 28 September 2023 insert: The validity of the Base Prospectus dated 28 September 2023 (the "**Initial Base Prospectus**") under which the public offer for the Securities described in these Final Terms is continued, expires on 28 September 2024 (the "**Initial Base Prospectus Expiry Date**") in accordance with Article 12 of Regulation (EU) 2017/1129 of the European Parliament and of the Council of 14 June 2017 (the "**Prospectus Regulation**"). In respect of Securities whose Maturity Date is later than the Initial Base Prospectus Expiry Date, the public offer of such Securities will be continued on the basis of one or more succeeding base prospectuses after the Initial Base Prospectus Expiry Date (each a "**Succeeding Base Prospectus**") in accordance with Article 8 paragraph 11 of the Prospectus Regulation, to the extent the Succeeding Base Prospectus envisages a continuation of the public offer of the Securities. In this context, these Final Terms are, in each case, to be read in conjunction with the most recent Succeeding Base Prospectus. The respective Succeeding Base Prospectus will be approved and published prior to the expiry of the validity of the respective preceding base prospectus. The respective Succeeding Base Prospectus will be published electronically on the website [www.jpmorgan-zertifikate.de] *[insert other website(s): ●].**

The subject of the Final Terms are [●] (Product No. [●] in the Base Prospectus – [[Securities][[●] Warrants] [[with] [European Style] [American Style] [with cash settlement] [that provide for cash settlement in all cases] [that may provide for physical settlement]]]) [linked to [●] (categorised as [a][an] [Share] [Securities representing Shares] [Index] [Commodity] [Futures Contract] [Foreign Exchange Rate] in the Base Prospectus)] (the "**Securities**").

*[in the case of an increase of issue size of Securities issued under this Base Prospectus, insert: The [insert number: ●] Securities [(corresponding to an aggregate nominal amount of [●])] together with the [insert number: ●] Securities [(corresponding to an aggregate nominal amount of [●])] with the securities identification number [WKN ●][●], issued under the Final Terms dated [insert date: ●] (the "**First Final Terms**") [insert additional issue where appropriate: ●] to the Base Prospectus dated 28 September 2023 as supplemented from time to time, form a single issue within the meaning of Section [●] of the General Conditions, i.e. they have the same [WKN][●] and [– with the exception of their number –] the same features (referred to together as the "**Securities**").]*

The Final Terms must be read in conjunction with the Base Prospectus dated 28 September 2023 (as supplemented from time to time) including the information incorporated by reference.

Full information on the Issuer and the offer of the Securities is only available on the basis of the combination of these Final Terms and the Base Prospectus (as supplemented from time to time), including the information incorporated by reference.

The Final Terms to the Base Prospectus are represented in the form of a separate document according to Article 8 paragraph 4 of the Prospectus Regulation.

The Final Terms, the other parts of the Base Prospectus and any supplements thereto are published in electronic form on the website [www.jpmorgan-zertifikate.de] [insert other website(s): ●].

An issue-specific summary with the key information for the Securities is annexed to these Final Terms.

ISSUE SPECIFIC CONDITIONS

The following "Issue Specific Conditions" of the Securities shall, for the Series of Securities, supplement and complete the General Conditions for the purposes of such Series of Securities.

[Insert Issue Specific Conditions applicable to the respective Series of Securities as contained in the Section "Form of Issue Specific Conditions" of the Base Prospectus.]

OTHER INFORMATION

LISTING AND ADMISSION TO TRADING [Application will be/has been made for the Securities to be listed and admitted to trading on the [Open Market (Freiverkehr) of the Frankfurt Stock Exchange (Börse Frankfurt Zertifikate AG)] [and] [[the] regulated unofficial market (Freiverkehr) of the Stuttgart Stock Exchange (EUWAX)] [*specify other*] with effect from, at the earliest, the start of the public offer. No assurances can be given that such application for listing and admission to trading will be granted (or, if granted, will be granted by the start of the public offer).] [The Issuer has no duty to maintain the listing (if any) of the Securities on the relevant stock exchange(s) over their entire lifetime. Securities may be suspended from trading and/or de-listed at any time in accordance with applicable rules and regulations of the relevant stock exchange(s).]

[The Securities will not be listed or admitted to trading on any exchange.]

[INTERESTS OF NATURAL AND LEGAL PERSONS INVOLVED IN THE [ISSUE] [OFFER]] [[●]²]

[ESTIMATED TOTAL EXPENSES RELATED TO THE ADMISSION TO TRADING AND NET AMOUNT OF THE ISSUE/OFFER:]³ [The estimated total expenses related to the admission to trading are [●] [and the estimated net amount of the proceeds are [●].]

REFERENCE ASSET [*Need to include details of respective Reference Asset and information where past and future performance and volatility of the Reference Asset(s) can be obtained.*]

[*Where the Reference Asset is an index need to include the name of the index, details of where the information about the index can be obtained and the relevant index disclaimer. Where the underlying is not an index need to include equivalent information.*]

[*Statement on benchmarks according to Article 29 para. 2 of the Benchmark Regulation*]

[The amount(s) payable under the Securities may be calculated by reference to [*specify benchmark: ●*], which is provided by [*insert administrator's legal name: ●*]. As at the date of these Final Terms, [*insert administrator's legal name: ●*] is [not] included in the register of administrators and benchmarks established and maintained by the European Securities and Markets Authority ("ESMA") pursuant to article 36 of the Regulation

² A description of conflicts of interest set out in the Section II. (Risk Factors associated with conflicts of interest) of the Base Prospectus. Only include a description of any interests if additional information are relevant.

³ To be included only in case of Securities with a minimum denomination of 100,000 Euro.

(EU) 2016/1011.]

[As far as the Issuer is aware, *[[insert benchmark: ●]* does not fall within the scope of the Regulation (EU) 2016/1011 by virtue of Article 2 of that regulation] [and/or] [the transitional provisions in Article 51 of the Regulation (EU) 2016/1011 apply], such that *[[insert names of administrator: ●]* is not currently required to obtain authorisation or registration (or, if located outside the European Union, recognition, endorsement or equivalence)⁴.] *[[insert alternative statement on benchmarks according to Article 29 para. 2 of the Benchmark Regulation, if applicable: ●]]*

[POST-ISSUANCE INFORMATION]

[[insert information about publication of post-issuance information, if applicable: ●]]

TERMS AND CONDITIONS OF THE OFFER

Start of public offer:	[●]
Issue Price:	[●]
Issue Date:	[●]
Issue Size:	[●]
[Conditions to which the offer is subject:]	[Not applicable] [●]
[Description of the application process:]	[Not applicable] [●]
[Description of possibility to reduce subscription and manner for refunding excess amount paid by applicant:]	[Not applicable] [●] [Investors may reduce their subscription during the Offer Period and in accordance with applicable laws and regulations subject to any applicable laws and regulations, any excess amounts paid by any applicant will be credited back to such applicant's account from which the excess amounts were debited.]
[Details of the minimum and/or maximum amount of application:]	[Not applicable] [●]
[Details of the method and time limits for paying up and delivering the Securities:]	[Not applicable] [●]
[Manner and date in which results of the offer are to be made public:]	[The results of the offering will be available on [or around] the website [www.jpmorgan-zertifikate.de]] [●]
[Process for notification to applicants of the amount allotted and the indication whether dealing may begin before notification is made:]	[Not applicable] [●]
[Amount of any expenses and taxes specifically charged to the subscriber or purchaser:]	[Not applicable] [●]

⁴ Additional explanatory language where the statement is negative (i.e. the relevant administrator is not in the ESMA register).

[Name(s) and address(es), to the extent known to the Issuer, of the placers in the various countries where the offer takes place:] [None] ☒

[Use of proceeds:] [The Issuer intends to use the proceeds of the offer of the Securities for *[Insert the use of proceeds⁵]*.]

Fees: [Not applicable] ☒

NON-EXEMPT OFFER IN THE EUROPEAN ECONOMIC AREA (EEA) [Not applicable] [An offer of the Securities in the European Economic Area may be made within the scope of the consent to use the prospectus granted below other than pursuant to Article 1 paragraph 4 of the Prospectus Regulation in [Germany] [and] [Luxembourg] [and] [The Netherlands] [and] [Austria] (the "**Public Offer Jurisdiction(s)**") during the Offer Period.

"**Offer Period**" [means the period from [(and including)] ☒ to [(and including)] ☒] [means the period from (and including) the start of the public offer in the respective Public Offer Jurisdiction to (expectedly and including) the [Valuation Date] [end of the term of the Securities] ☒].]

CONSENT TO USE THE PROSPECTUS

[The Issuer does not consent to the use of the Base Prospectus by any person other than the Dealer.]

[insert in the case of a general consent: The Issuer consents to the use of the Base Prospectus and the Final Terms by all financial intermediaries (general consent). General consent for the subsequent resale or final placement of Securities by the financial intermediaries is given in relation to the Public Offer Jurisdiction(s) during the Offer Period during which subsequent resale or final placement of the Securities can be made, provided however, that the Base Prospectus is still valid according to Article 12 of the Prospectus Regulation [and/or the public offer will be continued on the basis of a Succeeding Base Prospectus which is approved prior to the expiry of the preceding base prospectus].]

[insert in the case of an individual consent if the specified financial intermediaries shall be entitled to use the prospectus in all Public Offer Jurisdictions: The Issuer consents to the use of the Base Prospectus and the Final Terms by the following financial intermediary/ies ("**Authorised Offeror(s)**") (individual consent) for the subsequent resale or final placement of Securities in relation to such Public Offer Jurisdiction(s) during the Offer Period during which subsequent resale or final placement of the Securities can be made, provided however, that the Base Prospectus is still valid according to Article 12 of the Prospectus Regulation [and/or the public offer will be

⁵ In any case, the Issuer is free in the use of the proceeds of an issue of Securities.

continued on the basis of a Succeeding Base Prospectus which is approved prior to the expiry of the preceding base prospectus]: *[insert name and address of relevant financial intermediary/ies: ●]*

[insert in the case of an individual consent if the specified financial intermediaries shall be entitled to use the prospectus in selected Public Offer Jurisdictions only: The Issuer consents to the use of the Base Prospectus and the Final Terms by the financial intermediary/ies ("Authorised Offeror(s)"), set out in the table below (individual consent) for the subsequent resale or final placement of Securities in relation to such Public Offer Jurisdiction(s) as selected in the table below during the Offer Period during which subsequent resale or final placement of the Securities can be made, provided however, that the Base Prospectus is still valid according to Article 12 of the Prospectus Regulation [and/or the public offer will be continued on the basis of a Succeeding Base Prospectus which is approved prior to the expiry of the preceding base prospectus].

Name and address of Authorised Offeror(s):	Selected Public Offer Jurisdiction(s)
---	--

[●]

[●]

ISSUE SPECIFIC SUMMARY OF THE SECURITIES

[Insert]

VII. USE OF PROCEEDS

The net amount of the proceeds from each issue of Securities will be used by the Issuer for its general corporate purposes (including hedging arrangements). To the extent that the net proceeds of an issue of Securities are not applied for the purposes of making profit and/or hedging certain risks, the relevant Final Terms shall contain further information including the principal intended uses and the order of priority in which such uses are ranked (in any case, the Issuer is free in the use of the proceeds of an issue of Securities).

VIII. SUBSCRIPTION AND SALE

Subject to the terms and on the conditions contained in a programme agreement, as amended and/or supplemented and/or restated from time to time (the "**Programme Agreement**"), between the Issuer, the Dealer and the Arranger, the Securities will be offered on a continuous basis by the Issuer to the Dealer. The Issue Price will be determined by the Issuer in consultation with the Dealer at the time of the offer of the Securities to the public. The offer price of such Securities will be the Issue Price or such other price as may be agreed between an investor and the relevant financial intermediary making the offer of the Securities to such investor. The Securities may also be sold by the Issuer through the financial intermediary, acting as agent of the Issuer.

The Issuer may pay each financial intermediary a commission as agreed between them in respect of Securities subscribed by it.

Any person who purchases Securities at any time is deemed to have acknowledged, understood and agreed to comply with the selling restrictions set out below.

Selling Restrictions

European Economic Area

In relation to each Member State of the European Economic Area, the Dealer has represented and agreed, and each financial intermediary appointed under the Programme will be required to represent and agree that it has not made and will not make an offer of Securities which are the subject of the offering contemplated by the Base Prospectus as completed by the Final Terms in relation thereto to the public in a Member State except that it may make an offer of such Securities to the public in a Member State:

- (a) if the final terms in relation to the Securities specify that an offer of those Securities may be made other than pursuant to Article 1(4) of the Prospectus Regulation in that Member State (a "**Non-exempt Offer**"), following the date of publication of a prospectus in relation to such Securities which has been approved by the competent authority in that Member State or, where appropriate, approved in another Member State and notified to the competent authority in that Member State, provided that any such prospectus has subsequently been completed by the final terms contemplating such Non-exempt Offer, in accordance with the Prospectus Regulation, in the period beginning and ending on the dates specified in such prospectus or final terms, as applicable and the Issuer has consented in writing to its use for the purpose of that Non-exempt Offer;
- (b) at any time to any legal entity which is a qualified investor as defined in the Prospectus Regulation;
- (c) at any time to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Regulation), subject to obtaining the prior consent of the relevant financial intermediary nominated by the Issuer for any such offer; or
- (d) in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of Securities referred to in (b) to (d) above shall require the Issuer, the Dealer or any financial intermediary to publish a prospectus pursuant to Article 3 of the Prospectus Regulation, or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression "**an offer of Securities to the public**" in relation to any Securities in any Member State means the communication in any form and by any means of sufficient information about the conditions of the offer and the Securities to be offered to enable an investor to decide whether to purchase or subscribe the Securities and the expression "**Prospectus Regulation**" means Regulation (EU) 2017/1129.

The Dealer has represented and agreed, and each financial intermediary appointed under the Programme will be required to represent and agree, that any commission, fee or non-monetary benefit received from the Issuer complies with the applicable rules set out in the Markets in Financial

Instruments Directive (Directive 2014/65/EU, as may be amended or replaced from time to time, "**MiFID II**").

United Kingdom

The Dealer has represented and agreed, and each financial intermediary appointed under the Programme will be required to represent and agree, that it has not made and will not make an offer of Securities which are the subject of the offering contemplated by the Base Prospectus as completed by the Final Terms in relation thereto to the public in the United Kingdom except that it may make an offer of such Securities to the public in the United Kingdom:

- (a) to any legal entity which is a qualified investor as defined in the UK Prospectus Regulation;
- (b) to fewer than 150 natural or legal persons (other than qualified investors as defined in the UK Prospectus Regulation), subject to obtaining the prior consent of the relevant financial intermediary nominated by the Issuer for any such offer; or
- (c) in any other circumstances falling within section 86 of the Financial Services and Markets Act 2000 (as amended, the "**FSMA**"),

provided that no such offer of Securities shall require the Issuer, the Dealer or any financial intermediary to publish a prospectus pursuant to section 85 of the FSMA or supplement a prospectus pursuant to Article 23 of the UK Prospectus Regulation.

For the purposes of this provision, the expression "an offer of Securities to the public" in relation to any Securities in the United Kingdom means the communication in any form and by any means of sufficient information about the conditions of the offer and the Securities to be offered so as to enable an investor to decide to purchase or subscribe for the Securities.

The Dealer has represented and agreed, and each financial intermediary appointed under the Programme will be required to represent and agree, that any commission, fee or non-monetary benefit received from the Issuer complies with the applicable rules set out in the Markets in Financial Instrument Directive (Directive 2014/65/EU, as amended, "**MiFID II**") as implemented under UK law, such implementing legislation being preserved under UK law by virtue of the EUWA.

United States

General

The Securities and, in certain instances, the securities to be delivered upon redemption or exercise of the Securities, if any, have not been and will not be registered under the Securities Act, or the laws of any state or other jurisdiction of the United States. Trading in the Securities has not been approved by the CFTC under the Commodities Exchange Act, any U.S. federal or state banking authority or any other U.S. or foreign regulatory authority.

Neither the SEC nor any state securities commission has approved or disapproved of the Securities or determined that this Base Prospectus is accurate or complete. Any representation to the contrary is a criminal offence.

JPMSE has not registered, and does not intend to register, as an investment company under the Investment Company Act.

Accordingly, the Securities may not be legally or beneficially owned by any U.S. Person at any time nor offered, sold, transferred, pledged, assigned, delivered, exercised or redeemed at any time within the United States or to, or for the account or benefit of, any U.S. Person; provided, however, that this restriction shall not apply to a U.S. Person that is an affiliate (as defined in Rule 405 under the Securities Act) of the Issuer. In this Base Prospectus, the term "U.S. Person" means any person which is a "U.S. person" as defined in Rule 902(k) of Regulation S.

The Dealer further has represented and agreed in the Programme Agreement, and any financial intermediary who is appointed by the Issuer in connection with an issue of a Series of Securities will represent and agree that it, its affiliates, and any person acting on its or their behalf has not offered or

sold and will not offer or sell such Securities at any time except in accordance with Regulation S under the Securities Act, and that neither it, its affiliates nor any persons acting on its or their behalf have engaged or will engage in any directed selling efforts with respect to such Securities, and it and they have complied and will comply with the offering restrictions requirement of Regulation S. The terms used in this paragraph and the preceding paragraphs (other than the term "U.S. Person" as defined above) have the meanings given to them under Regulation S.

The Dealer has also agreed in the Programme Agreement, and any financial intermediary who is appointed by the Issuer in connection with an issue of a Series of Securities will agree, that, at or prior to confirmation of a sale of such Securities, it, its affiliates, and any person acting on its or their behalf will have sent to each distributor, dealer or person receiving a selling concession, fee or other remuneration that purchases such Securities from it (whether upon original issuance or in any secondary transaction) a written confirmation or notice stating that the purchaser is subject to the same restrictions on offers and sales and setting forth the restrictions on offers and sales of such Securities within the United States or to, or for the account or benefit of, any U.S. Person.

Each holder and legal and beneficial owner will be deemed on purchase to agree that the Issuer, the Programme Agent, each other Agent, the Arranger, the Dealer, the financial intermediary and their affiliates, and others will rely upon the truth and accuracy of the acknowledgements, representations and agreements made by such holder and legal and beneficial owner (as applicable) in this Base Prospectus.

The Securities may not be legally or beneficially owned by any U.S. Person at any time; provided, however, that this restriction shall not apply to a U.S. Person that is an affiliate (as defined in Rule 405 under the Securities Act) of the Issuer. Each holder and each legal and beneficial owner of a Security that is not an affiliate (as defined in Rule 405 under the Securities Act) of the Issuer, as a condition to purchasing such Security or any legal or beneficial interest therein, will be deemed on purchase to represent and agree that (A) neither it nor any person for whose account or benefit the Securities are being purchased (i) is located in the United States, (ii) is a U.S. Person that is not an affiliate (as defined in Rule 405 under the Securities Act) of the Issuer or (iii) was solicited to purchase the Securities while present in the United States and (B) it shall not offer, sell, transfer, pledge, assign, deliver, exercise or redeem any of such Securities or any interest therein at any time, directly or indirectly, in the United States or to, or for the account, or benefit of, any U.S. Person that is not an affiliate (as defined in Rule 405 under the Securities Act) of the Issuer.

With respect to all Warrants, each holder and legal and beneficial owner of a Warrant will be deemed on purchase to agree that such person shall not engage in hedging transactions with regard to the Warrants unless in compliance with the Securities Act and Commodity Exchange Act.

With respect to all Securities upon exercise or redemption of which equity securities may be deliverable, each holder and legal and beneficial owner of such Securities will be deemed on purchase to represent and agree that:

- (i) it will not exercise or redeem the Securities, and it understands and acknowledges that the securities to be delivered upon exercise or redemption may not be delivered, within the United States or to, or the account or benefit of, a U.S. Person that is not an affiliate (as defined in Rule 405 under the Securities Act) of the Issuer;
- (ii) it will only engage in hedging transactions with respect to the Securities and the securities to be delivered upon exercise or redemption of the Securities in compliance with the Securities Act and Commodity Exchange Act; and
- (iii) it understands and acknowledges that the Securities will bear a legend setting out the applicable selling restrictions under the Securities Act and the representations it is deemed to have made as a condition to purchasing such Security or any legal or beneficial interest therein.

The Securities may not be sold or transferred to, and each holder and legal and beneficial owner of Securities will be deemed on purchase to represent and agree that it is not acquiring the Securities for or on behalf of, and will not transfer Securities to, any pension plan or welfare plan, as defined in section 3 of the Employee Retirement Income Security Act ("ERISA"), that is subject to Title I of

ERISA, any plan or arrangement that is subject to section 4975 of the Internal Revenue Code, an entity the assets of which are considered assets of such a plan or arrangement, or a government, church or other plan subject to any law or regulation substantially similar to Title I of ERISA or section 4975 of the Code.

IX. TAXATION

Tax Warning

The tax legislation of the Member State of the investor and of the Member State of incorporation of the Issuer may affect the income generated by the Securities.

Each potential investor should seek advice from a representative of the tax advisory profession with respect to the tax implication of acquiring, holding and selling the Securities.

United States Federal Income Taxation

THE OVERVIEW OF U.S. FEDERAL INCOME TAX CONSEQUENCES SET OUT BELOW IS FOR GENERAL INFORMATION ONLY AND DOES NOT DESCRIBE ALL OF THE TAX CONSEQUENCES THAT MAY BE RELEVANT TO A HOLDER IN LIGHT OF THEIR PARTICULAR CIRCUMSTANCES, INCLUDING, BUT NOT LIMITED TO, ANY HOLDER THAT IS A CONTROLLED FOREIGN CORPORATION, PASSIVE FOREIGN INVESTMENT COMPANY, FINANCIAL INSTITUTION, INSURANCE COMPANY, DEALER OR TRADER IN SECURITIES OR CURRENCIES, REGULATED INVESTMENT COMPANY, PENSION PLAN, TAX-EXEMPT ORGANIZATION, A PARTNERSHIP OR OTHER FLOW-THROUGH ENTITY FOR US FEDERAL INCOME TAX PURPOSES, OR HOLDING THE SECURITIES AS A POSITION IN A "STRADDLE", "CONVERSION TRANSACTION" OR "CONSTRUCTIVE SALE" TRANSACTION. INVESTORS SHOULD CONSULT THEIR TAX ADVISERS AS TO THE PARTICULAR TAX CONSEQUENCES TO THEM OF OWNING THE SECURITIES, THE APPLICABILITY AND EFFECT OF FEDERAL NON-INCOME, STATE, LOCAL, NON-U.S. AND OTHER TAX LAWS AND POSSIBLE CHANGES IN TAX LAW.

The following is a summary of certain U.S. federal income tax consequences that may be relevant to the purchase, ownership and disposition of Securities by Non-U.S. Holders (defined below). This summary does not purport to be a comprehensive description of all of the U.S. federal income tax consequences that may be relevant to the acquisition, ownership or disposition of Securities by any particular investor and does not address tax considerations applicable to (i) Non-U.S. Holders (as defined below) who recognise gain in respect of a Security in a taxable year in which the Non-U.S. Holder is present in the United States for 183 days or more, (ii) persons that do not hold the Securities as capital assets, (iii) investors that own or are treated as owning (directly or indirectly) 10 per cent. or more, by vote or value, of the stock of the Issuer, or (iv) except where the context indicates otherwise, persons that did not purchase the Securities in the initial offering.

This summary does not address the material U.S. federal income tax consequences of every type of Security which may be issued under the Programme, and the relevant Final Terms may contain additional or modified disclosure concerning the material U.S. federal income tax consequences relevant to such type of Security as appropriate. This summary also does not address the considerations that may be applicable to holders of equity or other interests in an owner of a Security.

This summary is based on the Code, U.S. Department of the Treasury ("U.S. Treasury") regulations promulgated thereunder and judicial and administrative interpretations thereof, in each case as in effect and available on the date of this Base Prospectus. Changes to any of the foregoing could affect the tax consequences described below, possibly with retroactive effect. Further, this summary does not describe any tax consequences arising out of the tax laws of any U.S. state or local or non-U.S. jurisdiction, or any U.S. federal taxes other than income taxes. Prospective purchasers of Securities should consult their tax advisors regarding the U.S. federal, state, local and non-U.S. tax consequences of owning Securities in light of their own particular circumstances.

The Securities are complex derivative Securities the relevant Final Terms for which may vary materially among different series of Securities. There is limited U.S. federal income tax authority directly applicable to the Securities and such authority may not directly address Securities with terms substantially similar to those of a particular Security. Accordingly, the proper characterisation for U.S. federal income tax purposes of the Securities may be unclear under current law. The timing and character of income recognised by a Holder for U.S. federal income tax purposes may be uncertain and

also may vary depending on the precise terms of a Security. No rulings will be sought from the U.S. Internal Revenue Service ("**IRS**") regarding the characterisation of any of the Securities issued hereunder for U.S. federal income tax purposes, and the IRS or a court might not agree with the treatments described below. Accordingly, each prospective purchaser is urged to consult its own tax advisor regarding all aspects of the U.S. federal income tax consequences of acquiring, holding or disposing of Securities.

The discussion below is limited to beneficial owners of Securities that are not U.S. Holders ("**Non-U.S. Holders**"). The term "**U.S. Holder**" means a beneficial owner of Securities that is for U.S. federal income tax purposes (i) a citizen or resident of the United States, (ii) a corporation, or other entity treated as a corporation, created or organised under the laws of the United States or any political subdivision thereof, (iii) an estate the income of which is subject to U.S. federal income tax without regard to its source or (iv) a trust if a court within the United States is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have the authority to control all substantial decisions of the trust, or the trust has elected to be treated as a domestic trust for U.S. federal income tax purposes. The U.S. federal income tax treatment of a partner in a partnership (or other entity properly treated as a partnership for U.S. federal income tax purposes) that holds Securities will depend on the status of the partner and the activities of the partnership. Investors that are partnerships (or other entities properly treated as partnerships for U.S. federal income tax purposes) and partners in such partnerships should consult their tax adviser concerning the U.S. federal income tax consequences to their partners of the acquisition, ownership and disposition of Securities by the partnership.

Taxation of Non-U.S. Holders

U.S. Withholding Taxes

Payments of Interest and Additional Amounts

Subject to the discussions below in "*U.S. Withholding under FATCA*", "*U.S. Federal Withholding on Dividend Equivalent Payments*", "*U.S. Foreign Investment in Real Property Tax Act*" and "*United States Backup Withholding and Information Reporting*", the Issuer expects that payments of interest and any Additional Amounts on the Securities to a Non-U.S. Holder generally will not be subject to U.S. federal withholding or income tax provided that, in the case of U.S. federal income tax, (i) such payment is not effectively connected with such Non-U.S. Holder's conduct of a trade or business within the United States (and, if an income tax treaty applies, the interest is not attributable to a permanent establishment maintained by such Non-U.S. Holder within the United States) and (ii) the Non-U.S. Holder does not have and has not had a current or former relationship with the United States. A Non-U.S. Holder that is a corporation may, in certain circumstances, also be subject to an additional "branch profits tax" in respect of any such effectively connected income currently imposed at a 30% rate (or, if attributable to a permanent establishment maintained by such Non-U.S. Holder within the United States, a lower rate under an applicable tax treaty). Such Non-U.S. Holder should consult its tax advisor as to its particular tax consequences.

Sale, Exchange, Retirement or Other Taxable Disposition of the Securities

Subject to the discussion below in "*U.S. Withholding under FATCA*", "*U.S. Foreign Investment in Real Property Tax Act*", and "*United States Backup Withholding and Information Reporting*", a Non-U.S. Holder generally will not be subject to U.S. federal income or withholding tax on any gain realized on the sale, exchange, retirement or other taxable disposition of the Securities unless (i) the gain is effectively connected with the conduct by such Non-U.S. Holder of a trade or business within the United States (and, if an income tax treaty applies, the gain is attributable to a permanent establishment maintained by such Non-U.S. Holder within the United States) or (ii) the Non-U.S. Holder has or had a current or former relationship with the United States. Non-U.S. Holders who are described under (i) above generally will be subject to U.S. federal income tax on such gain in the same manner as a U.S. Holder and, if the Non-U.S. Holder is a foreign corporation, such holder may also be subject to the branch profits tax as described above. Non-U.S. Holders described under (ii) above may be subject to a flat 30% tax on the gain derived from the sale, exchange, retirement or other taxable disposition of the Securities, which may be offset by certain U.S. capital losses (notwithstanding the fact that such holder

is not considered a U.S. resident for U.S. federal income tax purposes). Any amount attributable to accrued but unpaid interest on the Securities generally will be treated in the same manner as payments of interest, as described above under "*Payments of Interest and Additional Amounts*".

U.S. Withholding under FATCA

As further described in "**FATCA**" below, payments made to a non-U.S. entity could be subject to a separate 30 per cent. U.S. withholding tax without regard to the exemptions from U.S. withholding that may otherwise be available.

U.S. Federal Withholding on Dividend Equivalent Payments

Under Section 871(m) of the U.S. Internal Revenue Code (the "**Code**") and regulations thereunder (collectively, "**Section 871(m)**"), payments on financial instruments that reference shares of one or more U.S. corporations may be treated as "dividend equivalent" payments that are subject to U.S. withholding tax at a rate of 30 per cent. (unless otherwise reduced by an applicable income tax treaty). For these purposes, a financial instrument that references certain funds or other investment vehicles that hold an interest in shares of a U.S. corporation, whether directly or synthetically through a financial instrument, may be treated as referencing the shares of the U.S. corporation. Generally, a "dividend equivalent" is a payment that is directly or indirectly contingent upon a U.S. source dividend or is determined by reference to a U.S. source dividend. For financial instruments issued on or after 1 January 2017 but prior to 1 January 2025, regulations and IRS guidance under Section 871(m) provide that dividend equivalent payments will be subject to withholding if the instrument has a "delta" of one with respect to either an underlying U.S. stock or a U.S. stock component of an underlying index or basket. For financial instruments issued on or after 1 January 2025, dividend equivalent payments on (i) a "simple" financial instrument that has a delta of 0.8 or greater with respect to an underlying U.S. stock or a U.S. stock component of an underlying index or basket and (ii) a "complex" financial instrument that meets the "substantial equivalence" test with respect to an underlying U.S. stock or a U.S. stock component of an underlying index or basket, will be subject to withholding tax under Section 871(m). A simple financial instrument is an instrument for which, with respect to each underlying U.S. stock or U.S. stock component of an underlying index or basket, all amounts to be paid or received on maturity, exercise, or any other payment determination date are calculated by reference to a single, fixed number of shares of the underlying U.S. stock or U.S. stock component, provided that the number of shares can be ascertained at the calculation time for the instrument, and there is a single maturity or exercise date with respect to which all amounts (other than any upfront payment or any periodic payments) are required to be calculated with respect to the underlying U.S. stock or U.S. stock component. An example of a simple financial instrument is an instrument that entitles the holder to all of the appreciation (or a reduction in the principal payment equal to all of the depreciation) in the value of 100 shares of a U.S. stock and any periodic dividends on such shares. Very generally, a complex financial instrument is an instrument that is not a simple financial instrument as described above.

The delta of a financial instrument generally is defined as the ratio of the change in the fair market value of the instrument to a small change in the fair market value of the number of shares of the underlying U.S. corporation. A financial instrument generally will be treated as having a delta of one if it provides for 100 per cent. participation in all of the appreciation and depreciation of one or more underlying U.S. stocks. Very broadly, the substantial equivalence test for complex financial instruments analyses whether a financial instrument has a correlation to the applicable underlying U.S. stock that is at least as great as that of a simple financial instrument with a delta of at least 0.8.

The delta or substantial equivalence of a financial instrument generally is determined either as of the pricing or issue date of the instrument, in accordance with the regulations. However, the issue date must be used as the determination date if a financial instrument is priced more than 14 calendar days before it is issued. In addition, the delta or substantial equivalence of Securities that are held in inventory by an affiliate of the Issuer (between issuance and sale to an investor) may be required to be retested at the time of sale or disposition from inventory by such affiliate. If Securities sold from inventory are determined to be subject to withholding under Section 871(m) and the same Series of Securities sold at issuance were determined not to be subject to Section 871(m), Holders of Securities sold at issuance may be adversely affected to the extent the Issuer does not, or is unable to, separately track and distinguish Securities sold to investors at issuance from those sold out of inventory. Further, a Security may be treated as reissued for purposes of Section 871(m) upon a significant modification of the terms of the Security. In this context, a rebalancing or adjustment to the components of an

underlying index or basket may result in the deemed reissuance of the Security (including for purposes of applying the effective dates provided in Section 871(m)). The Issuer intends to take the position that a Security should not be treated as reissued for this purpose as a result of a non-discretionary rebalancing or adjustment to the components of an underlying index or basket, an exercise of discretion by the index or basket provider or a board or committee responsible for maintaining the index or basket in interpreting its published, predefined criteria, or an exercise of discretion otherwise required as a result of a Market Disruption Event or similar events. Upon a significant modification, a Security that was not subject to withholding under Section 871(m) at issuance may become subject to withholding at the time of the deemed reissuance.

A Series of Securities that references an index or basket that is treated as a "qualified index" will not be subject to withholding under Section 871(m), even if such Securities meet, as applicable, the delta or substantial equivalence test with respect to a U.S. stock component of the index. In general, a qualified index is a diverse, passive, and widely used index that satisfies, for the year of determination, the technical requirements prescribed by regulations. Whether a Series of Securities is treated as referencing a qualified index is determined at pricing or issuance of the Securities, in accordance with the regulations. If a Series of Securities is treated as referencing a qualified index, such Securities generally will not become subject to withholding under Section 871(m) in a subsequent year after such determination unless (i) the Securities are treated as significantly modified (including by certain changes to the index), (ii) the Securities are determined to meet the delta or substantial equivalence test, as applicable, at the time they are significantly modified and (iii) the index referenced by the Securities is no longer treated as a qualified index. In addition, if a Holder or a related party enters into one or more transactions in connection with a Security that reduce exposure to any component of an underlying index that is otherwise treated as a qualified index, the Security will not, subject to certain limited exceptions (such as transactions that reduce exposure to the entire index or that reduce exposure to components of the underlying index by five percent or less of the value of the index), be treated as referencing a qualified index. In such case, the Holder may be subject to Section 871(m) tax even though the Issuer and other withholding agents may not withhold with respect to the Security.

In addition, a Security that in isolation is not subject to Section 871(m) may nonetheless be subject to Section 871(m) if the Holder has engaged, or engages, in other transactions in respect of an underlying U.S. stock or component of an underlying index or basket in connection with the Security. For these purposes, a Security and such other transactions will be subject to withholding under Section 871(m) if, in the aggregate, they replicate the economics of a transaction that would be a Section 871(m) simple financial instrument. In such situations, such Holders could be subject to Section 871(m) tax even if the Issuer does not withhold in respect of the Security. Further, a Holder may be required, including by custodians and other withholding agents with respect to the Security, to make representations regarding the nature of any other positions with respect to U.S. stock directly or indirectly referenced (including components of any index or basket) by such Security. A Holder that enters, or has entered, into other transactions in respect of a U.S. stock, component of an underlying index or basket, or the Securities should consult its own tax advisor regarding the application of Section 871(m) to the Securities and such other transactions.

The relevant Final Terms will indicate if the Issuer has determined that the particular issue of Securities is expected to be subject to withholding under Section 871(m). For Securities deposited with the Relevant Clearing System(s) that are determined to be subject to withholding under Section 871(m), unless otherwise indicated in the Final Terms, the Issuer will withhold at source on any dividend equivalent amounts and comply with certain related reporting requirements imposed by the clearing organisation in respect of such Securities. For Securities deposited with other clearing organisations, the Final Terms may describe alternative withholding procedures based on any requirements of such organisations. Any determination by the Issuer on the application of Section 871(m) to a particular Security generally is binding on Holders, but is not binding on the IRS. The Section 871(m) regulations require complex calculations to be made with respect to Securities referencing shares of U.S. corporations and their application to a specific issue of Securities may be uncertain. Accordingly, even if the Issuer determines that a Security is not subject to Section 871(m), the IRS could assert that withholding is required in respect of such Security, including where the IRS concludes that the delta or substantial equivalence with respect to the Security was determined more than 14 days prior to the Security's issue date.

For Securities deposited with the Relevant Clearing System(s), unless indicated otherwise in the relevant Final Terms, the rate of any withholding generally will not be reduced even if the Holder is not

subject to (or exempted from) the withholding tax (such as beneficial owners or Holders that are "United States persons" and certain intermediaries) or is eligible for a reduction under an applicable treaty. In certain limited circumstances, and regardless of the Relevant Clearing System with whom the Securities are deposited, the Final Terms may specify if the Issuer or other withholding agent will be able to withhold based on lower treaty rates to which Holders may be entitled or to take account of a Holder's exemption from the withholding tax. In general, Holders may be able to claim a refund for any excess amounts withheld by filing a U.S. tax return. However, Holders and beneficial owners may not receive the necessary information to properly claim a refund for excess withholding taxes. In addition, the IRS may not credit a Holder with withholding taxes remitted in respect of its Security for purposes of claiming a refund. Finally, a Holder's resident tax jurisdiction may not permit the holder to take a credit for U.S. withholding taxes related to the dividend equivalent amount. In any event, the Issuer will not be required to pay any additional amounts in respect of amounts withheld under Section 871(m) unless (i) "gross up" is specified to be applicable in the relevant Final Terms, (ii) "Exclude Section 871(m) Taxes from Gross Up" is specified not to be applicable therein, and (iii) the withholding is not treated by the Issuer as occurring due to actions of such investor (as described in Section 10 (5)(b) of the General Conditions (*Circumstances in which Additional Amounts will not be paid*)).

If a Series of Securities is determined to be subject to U.S. withholding tax under Section 871(m), information regarding the amount of each dividend equivalent, the delta of the Securities, the amount of any tax withheld and deposited, the estimated dividend amount (if applicable), and any other information required under the regulations, will be provided, communicated, or made available to Holders in a manner permitted by applicable regulations. The Final Terms will specify how such information will be made available to Holders. Withholding on payments will be based on actual dividends on the underlying U.S. stock or, if otherwise notified by the Issuer in accordance with applicable regulations, on estimated dividends used in pricing the Securities. Where a Series of Securities that references estimated dividend amounts also provides for any additional payments to reflect actual dividends on the underlying U.S. stock (e.g., extraordinary dividends), withholding tax will also apply to any additional payments.

If the Issuer determines that a Security is subject to withholding under Section 871(m), withholding tax will apply in respect of the actual (or estimated, as described above) dividends that are paid on the underlying U.S. stock and may apply even if the Issuer does not make a concurrent payment to the Holder. In addition, the U.S. tax may be withheld on any portion of a payment or deemed payment that is a dividend equivalent. Withholding under Section 871(m) generally will be required when payments are made on the Security or upon maturity, lapse or other disposition by the Holder of the Security. Alternatively, such withholding may occur in certain cases at the time a dividend is paid on the relevant U.S. stock (or, in certain other cases, at the close of the quarter upon which the dividend is paid). Upon remitting the taxes withheld to the IRS, any increase in value of the relevant asset, index or basket or distributions to a Holder in respect of a dividend equivalent will reflect the amount of the dividend net of the withholding described above.

Holders should note that the German tax authorities may hold the view, with respect to dividend equivalent payments pursuant to Section 871(m), that U.S. withholding tax on dividend equivalent payments is not creditable against German income tax of a Holder. In the absence of such a credit, a Holder may be subject to double taxation on such dividend equivalent amounts.

Holders should consult with their tax advisers regarding the potential application of Section 871(m) to the Securities.

U.S. Foreign Investment in Real Property Tax Act

Under Section 897 of the Code, commonly referred to as the U.S. Foreign Investment in Real Property Tax Act (" **FIRPTA** "), a Non-U.S. Holder may be subject to U.S. federal income tax on a disposition of a United States real property interest (a "**USRPI**"). Very generally, a USRPI may be an interest in U.S. real property or an interest in a United States real property holding corporation (a "**USRPHC**") within the meaning of section 897 of the Code. However, an interest in a USRPHC that does not exceed generally 5 per cent. of the corporation's regularly traded stock is not a USRPI, after taking into account shares or interests of the underlying issuer that are directly, indirectly or constructively owned by such Non-U.S. Holder. In addition, holding the Securities may also impact the taxation of such other shares or interests.

The Issuer will not attempt to ascertain whether an issuer of reference shares, or an issuer of shares that are components of an Index or basket of securities, is a USRPHC. To the extent a Security is treated as a USRPI, any gain from the disposition thereof generally would be subject to U.S. federal income tax and required to be reported by the Non-U.S. Holder on a U.S. federal income tax return, and the amount realised on such disposition would in certain cases be subject to withholding at a rate of 15 per cent. Even if the Issuer does not withhold, there can be no assurance that a withholding agent will not withhold in respect of a Security. A Non-U.S. Holder may have U.S. federal income tax liability that exceeds amounts withheld, if any. Neither the Issuer nor a withholding agent will pay any additional amounts in respect of amounts withheld or any tax liability arising under section 897 of the Code.

Non-U.S. Holders should consult with their tax advisors regarding the application of section 897 to an investment in their Securities.

United States Backup Withholding and Information Reporting

Payments on the sale, exchange, retirement or other disposition of a Security made to a Non-U.S. Holder by a non-U.S. broker (other than a U.S. Controlled Person) generally will not be subject to information reporting or backup withholding. However, Non-U.S. Holders may be required to comply with certification and identification procedures in order to prove their exemption from such information reporting or backup withholding. If a Non-U.S. Holder holds the Securities through a foreign partnership, these certification procedures would generally be applied to such holder as a partner. The payment of proceeds of a sale or redemption of the Securities effected at the U.S. office of a broker generally will be subject to the information reporting and backup withholding rules, unless such Non-U.S. Holder establishes an exemption. In addition, the information reporting rules will apply to payments of proceeds of a sale or redemption effected at a non-U.S. office of a broker that is a U.S. Controlled Person, as defined below, unless the broker has documentary evidence that the holder or beneficial owner is not a U.S. Holder (and has no actual knowledge or reason to know to the contrary) or the holder or beneficial owner otherwise establishes an exemption.

For purposes of this discussion, a "**U.S. Controlled Person**" means (i) a U.S. person (as defined in the Code, and for this purpose includes a foreign branch or office of such person), (ii) a controlled foreign corporation for U.S. federal income tax purposes, (iii) a foreign person 50 per cent. or more of whose gross income was effectively connected with the conduct of a United States trade or business for a specified three-year period, (iv) a foreign partnership, if at any time during its tax year, one or more of its partners are U.S. persons who, in the aggregate, hold more than 50 per cent. of the partnership's income or capital interest or if, at any time during its tax year, it is engaged in the conduct of a trade or business in the United States, or (v) a U.S. branch of a foreign bank or a foreign insurance company.

Any amounts withheld under the backup withholding rules may be allowed as a credit against the Holder's U.S. federal income tax liability, and may entitle the Holder to a refund, provided that the required information is furnished to the IRS in a timely manner.

FATCA

General

Under FATCA, the Issuer may be required to deduct a withholding tax of 30 per cent. on certain U.S.-source payments on Securities (including "dividend equivalent" payments as defined above under "U.S. Federal Withholding on Dividend Equivalent Payments") made to certain Holders in respect of the Securities. Subject to certain exceptions, the withholding tax may apply to payments in respect of Securities issued by the Issuer made to (i) unless exempt or otherwise deemed FATCA compliant, a Non-U.S. Holder or beneficial owner that is a foreign financial institution (an "**FFI**") (as defined under FATCA) that does not have in place an effective agreement as described in Section 1471(b)(1) of the Code (an "**IRS FATCA Agreement**") (such a Non-U.S. Holder, a "**Non-Participating FFI**") and (ii) any other Non-U.S. Holder or beneficial owner that does not comply with the Issuer's or an intermediary's requests for ownership certifications and identifying information or, if applicable, for waivers of law prohibiting the disclosure of such information to a taxing authority.

The Issuer may also be subject to withholding if it does not comply with the relevant requirements under FATCA. In the event that the Issuer determines that there is a substantial likelihood that payments made to it would be subject to withholding tax under FATCA or if the Issuer otherwise

determines that there is a substantial likelihood that it will violate any requirement of, or an agreement entered into with a taxing authority with respect to, FATCA, it is possible that a portion or all Securities of a series issued by the Issuer will be redeemed or terminated at the Early Payment Amount.

Reporting, Withholding and Potential Redemptions Under FATCA

As described above, certain payments on U.S. assets (including principal) and certain payments on non-U.S. assets (including principal) (collectively, "**U.S. Source Income**") made to non-U.S. persons may be subject to a 30 per cent. withholding tax. Withholding generally applies to payments of U.S. source interest, dividends (including payments treated as "dividend equivalents" under section 871(m) of the Code) and other passive income. Withholding on "foreign passthru payments" will apply no earlier than two years after the publication in the Federal Register of final regulations defining this term (the "**Foreign Passthru Payments Effective Date**"). Withholding, however, will not apply (i) to payments on certain non-U.S. obligations that are outstanding as of the date that is six months after the date on which final U.S. Treasury regulations defining the term "foreign passthru payments" are filed with the U.S. Federal Register, so long as such obligations are not treated as reissued after the relevant date (such obligations, "**Grandfathered Obligations**") or (ii) if each recipient of a payment complies with the relevant requirements under FATCA. Such final U.S. Treasury regulations have not yet been issued. It is currently unclear whether or how this withholding will apply to payments of non-U.S. Source Income.

Investors should be aware that the Foreign Passthru Payments Effective Date above reflects recently proposed U.S. Treasury regulations ("**Proposed FATCA Regulations**") which delay the effective date for withholding on "foreign passthru payments". The effective date for withholding on "foreign passthru payments" otherwise would have been the date on which final U.S. Treasury regulations defining "foreign passthru payments" are published. The Proposed FATCA Regulations also eliminate FATCA withholding on gross proceeds from, or final payments, redemptions, or other principal payments made in respect of, the disposition of an instrument that may produce U.S. source interest or dividends ("**U.S. Gross Proceeds**"). The U.S. Treasury have indicated that taxpayers may rely on the Proposed FATCA Regulations until final regulations are issued. The discussion above assumes that the Proposed FATCA Regulations will be finalized in their current form and that such final regulations will be effective retroactively. No assurance can be given that the Proposed FATCA Regulations will be finalized in their current form or that any such final regulations will be effective retroactively.

To avoid the withholding tax, a payee that is an FFI generally must have in place an effective IRS FATCA Agreement or comply with applicable non-U.S. FATCA laws unless the payee is exempt or otherwise deemed to be in compliance with FATCA, and any other payee generally must comply with the payor's request for ownership and identifying information, unless the payee is exempt or otherwise deemed to be in compliance with FATCA. Germany and the United States have signed an intergovernmental agreement ("**IGA**") for the automatic exchange of data between the tax authorities of both countries in relation to the implementation of FATCA. Pursuant to the IGA, the Issuer has registered with the IRS to be treated as a deemed compliant FFI for FATCA purposes. As a registered deemed compliant FFI, the Issuer should not be subject to the 30 per cent. FATCA withholding tax, provided that it is not designated as a "nonparticipating FFI" for FATCA purposes. The obligations of the Issuer under the IGA and its implementation in German legislation include obtaining information from the Holders and/or beneficial owners of Securities and may include withholding, or providing the necessary information so a payor can withhold, on payments to Holders and/or beneficial owners of Securities that are not compliant with any applicable requirements under FATCA.

To the extent any payments in respect of Securities are made to a beneficial owner by an intermediary financial institution, broker or agent (each, an "**Intermediary**"), such beneficial owner will be required to comply with the Intermediary's requests for identifying information that would permit the Intermediary to comply with its own IRS FATCA Agreement or non-U.S. FATCA laws.

Any Holder or beneficial owner of Securities that (i) fails to properly comply with the Issuer's or an Intermediary's requests for ownership certifications and identifying information or, if applicable, a waiver of non-U.S. law prohibiting the release of such information to a taxing authority (such a holder, a "**Recalcitrant Holder**") or (ii) is itself an FFI and, unless exempt or otherwise deemed to be in compliance with FATCA, does not have in place an effective IRS FATCA Agreement, may be subject to a 30 per cent. withholding tax with respect to payments on the Securities.

Holders should also be aware that it may be necessary for the Issuer to redeem Recalcitrant Holders or Non-Participating FFIs if such a Holder's non-compliance may cause the Issuer to be subject to withholding or if the Issuer otherwise determines that there is a substantial likelihood that it will violate any requirement of, or an agreement entered into with a taxing authority with respect to, FATCA, as described in General Condition 10.5 (*Early Redemption or Termination for Taxation – FATCA*). Any redemption will be at the Early Payment Amount. In addition, compliant Holders may also be subject to the redemption of their Securities in such an event, as set out in General Condition 10.5 (*Early Redemption or Termination for Taxation – FATCA*).

Uncertain Application

No assurance can be given that the Issuer will be able to take all necessary actions or that actions taken will be successful in minimising the impact of FATCA on the Holders or the Issuer. *Each potential investor in Securities should consult its own tax advisor to determine how FATCA may affect an investment in the Securities in such investor's particular circumstance.*

X. IMPORTANT LEGAL INFORMATION

1. Responsibility Statements

J.P. Morgan SE (in its role as issuer and arranger and dealer for the Programme) accepts responsibility for the information provided in this Base Prospectus. It furthermore declares that the information contained in this Base Prospectus is, to the best of its knowledge, in accordance with the facts and that the Base Prospectus makes no omission likely to affect its import.

2. Consent to use the Base Prospectus

If so specified in the Final Terms in respect of any particular issuance of Securities, the Issuer consents to the use of the Base Prospectus in connection with the making of an offer of the Securities to the public requiring the prior publication of a prospectus under the Prospectus Regulation (a "**Non-exempt Offer**") and accepts responsibility for the content of the Base Prospectus also with respect to subsequent resale or final placement of Securities by any financial intermediary which was given consent to use the Base Prospectus. Such consent may, as specified in the applicable Final Terms, be given for the duration of the Offer Period specified in the applicable Final Terms to:

- (i) all financial intermediaries (general consent) and for the Public Offer Jurisdiction(s); or
- (ii) one or more financial intermediary/ies (each, an "**Authorised Offeror**") (individual consent) for the Public Offer Jurisdiction(s); or
- (iii) one or more financial intermediary/ies (each, an "**Authorised Offeror**") (individual consent) for selected Public Offer Jurisdiction(s) only.

"**Public Offer Jurisdiction(s)**" means one or more of the following Member States: Germany, Luxembourg, The Netherlands and Austria.

The above consent is subject to compliance with the selling restrictions applicable to the Securities and with any applicable law. Each financial intermediary is obliged to only provide the Base Prospectus together with any supplement thereto (if any) to any potential investor.

In the event that a financial intermediary makes an offer, that financial intermediary will inform investors at the time the offer is made of the terms and conditions of the offer as set out in the Final Terms.

If the relevant Final Terms state that the consent to use the Base Prospectus is given to all financial intermediaries in the respective Public Offer Jurisdiction (general consent), any financial intermediary using the Base Prospectus has to state on its website that it uses the Base Prospectus with the consent of the Issuer and in accordance with the conditions attached thereto.

If the relevant Final Terms state that the consent to use the Base Prospectus is given to one or more specified financial intermediaries in the respective Public Offer Jurisdiction (individual consent), any new information with respect to financial intermediaries unknown at the time of the approval of the Base Prospectus or the filing of the relevant Final Terms will be published on the website www.jpmorgan-zertifikate.de or any other website, as further specified in the relevant Final Terms.

If an investor intends to purchase Securities from a financial intermediary, the investor will do so, and such offer and sale will be made, in accordance with any terms and other arrangements in place between such financial intermediary and the investor, including as to price and settlement arrangements. The Issuer will not be a party to any such arrangements and, accordingly, the Base Prospectus does not contain such information. The terms and conditions of such offer should be provided to the investor by that financial intermediary at the time the offer is made. Neither the Issuer nor the Dealer has any responsibility or liability for such information.

3. Approval of the Base Prospectus

The Issuer makes the following statements:

- (a) This Base Prospectus was approved by the German Federal Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht*) as competent authority (the "**Competent Authority**") under Regulation (EU) 2017/1129.
- (b) The Competent Authority only approves this Base Prospectus with regard to the standards of completeness, comprehensibility and coherence set out in the Regulation (EU) 2017/1129.
- (c) The approval should not be seen as a confirmation with respect to the quality of the securities which are subject of this Base Prospectus.
- (d) Investors should make their own assessment of the suitability of these securities for their investment.

4. Categories of potential investors

Subject to the restrictions and conditions set out in this Base Prospectus, the categories of potential investors to which the Securities are intended to be offered are retail, "high net worth" and institutional investors.

XI. INFORMATION ABOUT THE ISSUER

With respect to the information about J.P. Morgan SE as Issuer of the Securities, the information contained in the Registration Document of J.P. Morgan SE dated 2 June 2023 (the "**JPMSE Registration Document**"), the first supplement dated 21 July 2023 to the JPMSE Registration Document (the "**First Supplement to the JPMSE Registration Document**"), the JPMSP Registration Document and the First Supplement to the JPMSP Registration Document which have been approved by the Competent Authority as well as the information in the audited annual report of JPMSE for the financial year ended 31 December 2022 (the "**JPMSE 2022 Annual Report**") and the audited annual report of JPMSE for the financial year ended 31 December 2021 (the "**JPMSE 2021 Annual Report**") are incorporated by reference pursuant to Article 19 paragraph 1 of the Prospectus Regulation into this Base Prospectus (detailed information regarding the pages in the JPMSE Registration Document, the First Supplement to the JPMSE Registration Document, the JPMSP Registration Document, the First Supplement to the JPMSP Registration Document, the JPMSE 2022 Annual Report and the JPMSE 2021 Annual Report from which information is incorporated by reference can be found in section "XII. General Information" under "4. Information incorporated by reference").

XII. GENERAL INFORMATION

1. Authorisations

JPMSE

The preparation of the Base Prospectus as well as the issue of Securities thereunder have been authorised in a proper manner by a resolution of the Management Board of JPMSE dated on or around 13 September 2023.

2. Availability of Base Prospectus

This Base Prospectus is published in accordance with Article 8 in connection with Article 21 of the Prospectus Regulation and Article 10 of the Commission Delegated Regulation (EU) 2019/979. The Final Terms of the Securities to the extent possible will be published before the start of the public offering in accordance with Article 8 paragraph 5 in connection with Article 21 of the Prospectus Regulation.

This Base Prospectus, if applicable supplements thereto, as well as the Final Terms will be published in electronic form on the website www.jpmorgan-zertifikate.de under "Dokumente" and the relevant product site (retrievable by entering the relevant securities identification number for the respective Security in the search field).

The following documents from which information is incorporated by reference will be available on the website <https://www.jpmorgan-zertifikate.de/Dokumente/Basisprospekte/> under the section "Basisprospekte":

- the JPMSE Registration Document dated 2 June 2023 (at: https://jpmorgan-zertifikate.de/globalassets/library/legal-documents/items/230602_JPMSE_RD_2023_sv3.pdf);
- the First Supplement to the JPMSE Registration Document (at: https://www.jpmorgan-zertifikate.de/globalassets/library/legal-documents/items/230721_jpmse_regform_supplement_sv3.pdf) and any future supplements to the JPMSE Registration Document;
- the JPMSE 2022 Annual Report (at: <https://www.jpmorgan-zertifikate.de/globalassets/library/legal-documents/items/2022-annual-report-english.pdf>);
- the JPMSE 2021 Annual Report (at: <https://www.jpmorgan-zertifikate.de/globalassets/library/legal-documents/items/2021-annual-report-english.pdf>);
- the JPMSP Registration Document dated 19 April 2023 (at: <https://www.jpmorgan-zertifikate.de/globalassets/library/legal-documents/items/jpm-sp-registration-document-19-april-2023-final-version.pdf>);
- the First Supplement to the JPMSP Registration Document (at: <https://www.jpmorgan-zertifikate.de/globalassets/library/legal-documents/items/supplement-no.-1-to-the-2023-jpm-sp-registration-document.pdf>) and any future supplements to the JPMSP Registration Document; and
- the articles of association of JPMSE.

In addition, the documents will be made available by the Issuer on request and free of charge on a durable data medium or, if explicitly requested, in paperform.

3. De-listing

The Issuer has no duty to maintain the listing (if any) of the Securities on the relevant stock exchange(s) over their entire lifetime. Securities may be suspended from trading and/or de-listed at any time in accordance with applicable rules and regulations of the relevant stock exchange(s).

4. Information incorporated by reference

This Base Prospectus should be read and construed in conjunction with each supplement to this Base Prospectus and the information incorporated by reference into this Base Prospectus. The information set forth under B. (*Information*) below contained in the documents set forth under A. (*Documents*) below which is hereby incorporated by reference into this Base Prospectus and deemed to form a part of this Base Prospectus:

A. Documents

From the following documents information is incorporated by reference into this Base Prospectus:

- the JPMSE Registration Document dated 2 June 2023 which has been approved by the Competent Authority;
- the First Supplement to the JPMSE Registration Document;
- the JPMSE 2022 Annual Report;
- the JPMSE 2021 Annual Report;
- the JPMSP Registration Document dated 19 April 2023 which has been approved by the CSSF; and
- the First Supplement to the JPMSP Registration Document.

B. Information

The table below sets out the relevant page references for the information incorporated into this Base Prospectus by reference. Any information incorporated by reference that is not included in the cross-reference list is considered to be additional information and is not required by the relevant schedules of the Prospectus Regulation. Any non-incorporated parts (information which is not listed in the cross-reference list below) of such document referred to herein are deemed not relevant for an investor.

Document	Incorporated section / Page(s)	Section / Page(s) in the Base Prospectus
<i>JPMSE Registration Document dated 2 June 2023</i>	all sections / all pages	section II.A. / page 13 section XI. / page 278
<i>First Supplement to the JPMSE Registration Document</i>		
Information contained in the First Supplement to the JPMSE Registration Document	page 2	section II.A. / page 13 section XI. / page 278
<i>JPMSE 2022 Annual Report</i>		
Management report	pages 8 to 86	section XI. / page 278
Assurance by the Management Board	pages 87 to 88	section XI. / page 278
Financial statements:		
Income statement	page 90	section XI. / page 278
Balance sheet	page 91	section XI. / page 278
Changes in equity	page 92	section XI. / page 278
Cash flow statement	page 93	section XI. / page 278
Notes to the financial statements	pages 94 to 215	section XI. / page 278
Independent auditors' report	pages 216 to 222	section XI. / page 278

JPMSE 2021 Annual Report

Management report	pages 2 to 72	section XI. / page 278
Assurance by the Management Board	page 74	section XI. / page 278
Financial statements:		
Income statement	page 76	section XI. / page 278
Balance sheet	page 77	section XI. / page 278
Changes in equity	page 78	section XI. / page 278
Cash flow statement	page 79	section XI. / page 278
Notes to the financial statements	pages 80 to 195	section XI. / page 278
Independent auditors' report	pages 196 to 202	section XI. / page 278

JPMSP Registration Document dated 19 April 2023

Risk Factors	sections 1. to 5. / pages 5 to 39	section II.A. / page 13
--------------	--------------------------------------	-------------------------

First Supplement to the JPMSP Registration Document

Information contained in the First Supplement to the JPMSP Registration Document	page 2	section II.A. / page 13 section XI. / page 278
--	--------	---

*The page numbers referenced above relate to the order and numbering of pages of the PDF file.