BNP PARIBAS INDICES
INDEX METHODOLOGY SUPPLEMENT
BNP Paribas Long Bund 30Y Rolling Future Index

Final Version dated 5th September 2017

This document (the **"BNP Paribas Index Methodology Supplement"**) supplements, forms a part of and is subject to the BNP Paribas Index Handbook dated November 20, 2015 (the **"Handbook"**), as may be amended, supplemented, replaced or superseded from time to time. The Handbook and the BNP Paribas Index Methodology Supplement together comprise the **"BNP Paribas Index Rules"** for the BNP Paribas Index described herein. In the event of an inconsistency between the Handbook and this BNP Paribas Index Methodology Supplement, this BNP Paribas Index Methodology Supplement will govern. Terms used herein, but not defined, bear the meaning set forth in the Handbook.

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Description of the BNP Paribas Long Bund 30Y Rolling Future Index

The objective of the BNP Paribas Long Bund 30Y Rolling Future Index (the "**BNP Paribas Index**") and the strategy and methodology related thereto (the "**BNP Paribas Index Methodology**") is to synthetically replicate an investment that provides continuous exposure to the most actively traded Euro-Buxl® Futures Contract, without taking physical delivery. The BNP Paribas Index generally replicates an investment in the Euro-Buxl® Futures Contracts with the nearest Contract Month (as defined below) for which the Last Trade Date (as defined below) has not occurred (the "**First Near Futures Contract**"). In order to avoid taking physical delivery of Bunds, the BNP Paribas Index Methodology implements a process prior to the Last Trade Date of the First Near Futures Contract by which such futures contract is replaced by the futures contract with the next following quarterly Contract Month. The BNP Paribas Index Level is intended to reflect the performance of the BNP Paribas Index Components based on their daily settlement price as provided by the Eurex Exchange.

During a specified period (the "**Roll Period**") prior to the Last Trade Date of the First Near Futures Contract, the BNP Paribas Index Methodology replicates the sale of the expiring First Near Futures Contract and the purchase of the Euro-Buxl® Futures Contract with the next quarterly expiration date (the "**Second Near Futures Contract**"). This process (the "**Roll Process**") is implemented by calculating the spread between the First Near Futures Contract and the Second Near Futures Contract (the "**Calendar Spread**") in the calculation of the BNP Paribas Index during the Roll Period. The Roll Process for the BNP Paribas Index occurs during each calendar quarter based on the contract months of the Euro-Buxl® Futures Contract, and is detailed in this BNP Paribas Index Methodology Supplement.

The BNP Paribas Index Level does not take into account any cash or other related returns that would be generated by actual investments in the BNP Paribas Index Components.

BNP Paribas Index Components

The BNP Paribas Index is comprised of a synthetic portfolio of assets. There is no actual portfolio of assets to which any person is entitled or has any ownership interest. The BNP Paribas Index does not entail the actual execution of any transactions with respect to the BNP Paribas Index Components. The BNP Paribas Index Methodology synthetically replicates all of the referenced BNP Paribas Index Components and transactions.

The BNP Paribas Index Components that comprise the BNP Paribas Index are Euro-Buxl® Futures Contracts. The Euro-Buxl® Futures Contracts are traded and quoted on Eurex Exchange ("**Eurex**" or the "**Exchange**").

In general, a futures contract is a standardized contract to buy or sell an underlying asset at an agreed-upon price at the expiration of the contract. Futures contracts are traded and quoted on one or more public exchanges, subject to rules as specified by the relevant exchange. Futures contracts may have physical or cash settlement, depending on the reference asset, and are standardized in notional size and term.

Eurex lists Euro-Buxl® Futures Contracts for delivery in March, June, September or December of each year (the quarterly month associated with a given futures contract, the contract's "**Contract Month**"), by which the seller must make delivery to a buyer of physical German Federal Bonds ("**Bunds**") that meet certain delivery grade requirements, as specified by the Exchange ("**Eligible Bonds**"). The rules of the Euro-Buxl® Contract require the holder of a short position at the close of trading on that contract's Last Trade Date to make this delivery on a specific day (the "**Delivery Date**") to a holder of a long position selected by the Exchange.

The Euro Buxl® Futures Contract is traded and quoted on Eurex under Bloomberg Comdty ticker "UB" followed by the Contract Month code ("H" for March, "M" for June, "U" for September and "Z" for December) and the last digit of the expiration year. For example, the Euro Buxl® Futures Contract expiring in December 2016 has the ticker symbol "UBZ6 Comdty". The notional value of one such contract on any day is 100,000 Euro.

More information about the BNP Paribas Index Component is available at http://www.eurexchange.com/exchange-en/products/int/fix/government-bonds/Euro-Buxl--Futures/15202.

The prices of the BNP Paribas Index Components used to calculate the BNP Paribas Index Level on each BNP Paribas Index Level Calculation Date are determined based on the daily settlement price provided by the Exchange for each BNP Paribas Index Component on such day.

BNP Paribas Index Methodology

The following describes the composition of the BNP Paribas Index in greater detail and the methodology used by the BNP Paribas Index.

BNP Paribas Index:	BNP Paribas Long Bund 30Y Rolling Future Index (Bloomberg Ticker: BNSXFUBE Index)
BNP Paribas Index Status:	Public Index
BNP Paribas Index Family:	Fixed Exposure
Index Sponsor:	BNP Paribas
Index Calculation Agent:	Solactive AG Unless otherwise indicated, all calculations and determinations set forth in this BNP Paribas Index Methodology Supplement are performed by the Index Calculation Agent.
BNP Paribas Index Launch Date	07 Sep 2017
BNP Paribas Index Start Date	09 Sep 2005
BNP Paribas Index Currency:	EUR
BNP Paribas Index Composition	
BNP Paribas Index Components:	As described in Table 1 of Annex 2 – BNP Paribas Index Components
BNP Paribas Index Reference Rates:	Not Applicable
BNP Paribas Index Component Weighting Determination Dates:	Not Applicable
BNP Paribas Index Features	
Return Type:	Excess Return
Rebalancing:	Not Applicable
BNP Paribas Index Costs:	Not Applicable

Currency Conversion Mechanism:	Not Applicable
Volatility Control Mechanism:	Not Applicable

Calculation and Publication of the BNP Paribas Index Level:

Initial BNP Paribas Index Level:	100, as of the BNP Paribas Index Start Date. Hypothetical backtesting is used to determine levels of the BNP Paribas Index for the period starting from the BNP Paribas Index Start Date, up to and including the BNP Paribas Index Launch Date, as described in Section 3 "*Backtesting and Historical Data*" of the Handbook.
Frequency of calculation of BNP Paribas Index Level:	Each Scheduled Trading Day
BNP Paribas Index Publication Dates:	Each BNP Paribas Index Level Calculation Date
BNP Paribas Index Publication Page:	Bloomberg: BNSXFUBE Index
Website where level and current composition of the BNP Paribas Index is published:	Not Applicable

Price Disrupted Days

Please see Section 4.3 "*Price Disrupted Days"* of the Handbook.

BNP Paribas Index Adjustment Events:

Please see Section 5 "*BNP Paribas Index Adjustment Events and Consequences"* of the Handbook.

BNP Paribas Index Potential Adjustment Events:

Please see Section 6 "*BNP Paribas Index Potential Adjustment Events and Consequences"* of the Handbook.

Technical Annexes applicable to the BNP Paribas Index:

Not applicable.

Dates:

"Roll Day" means each Scheduled Trading Day during the Roll Period.

"Roll Period" means the period from, and excluding, the Roll Period Start Date calculated in respect of a Last Trade Date to, and including, such Last Trade Date.

"Roll Period Start Date" means, in respect of a Last Trade Date for the BNP Paribas Index

Component, the 2nd Scheduled Trading Day preceding the Last Trade Date.

Where:

"**Last Trade Date**" means, with respect to a BNP Paribas Index Component, the second Scheduled Trading Day preceding the Delivery Date in the calendar month of the BNP Paribas Index Component's Contract Month.

Annex 1
The BNP Paribas Index Methodology for
the BNP Paribas Long Bund 30Y Rolling Future Index:

BNP Paribas Index Level Calculation:

On each BNP Paribas Index Level Calculation Date t, the BNP Paribas Index Level ($Index_t$) shall be determined in accordance with the following formulae:

As of the BNP Paribas Index Start Date ($t = 0$):

$$Index_0 = 100$$

On each BNP Paribas Index Level Calculation Date t following the BNP Paribas Index Start Date:

(i)   For each BNP Paribas Index Level Calculation Date t that is not a Roll Day:

     a.   if BNP Paribas Index Level Calculation Date $t-1$ is not a Last Trade Date for the BNP Paribas Index Component:

$$Index_t = Index_{t-1} \times \frac{DCP1_t}{DCP1_{t-1}}; \text{ or}$$

     b.   if BNP Paribas Index Level Calculation Date $t-1$ is a Last Trade Date for the BNP Paribas Index Component:

$$Index_t = Index_{t-1} \times \frac{DCP1_t}{DCP2_{t-1}}$$

(ii)   For each BNP Paribas Index Level Calculation Date t that is a Roll Day:

$$Index_t = Index_{t-1} \times \frac{DCP2_t}{DCP2_{t-1}}$$

t means the BNP Paribas Index Level Calculation Date

$t-1$ means the BNP Paribas Index Level Calculation Date immediately preceding BNP Paribas Index Level Calculation Date t

DCP_t means the Daily Contract Price, which is the Daily Settlement Price on BNP Paribas Index Level Calculation Date t as provided by Bloomberg.

$DCP1_t$ means the DCP_t for the First Near Futures Contract $FQ1_t$

$DCP2_t$ means the DCP_t for the Second Near Futures Contract $FQ2_t$

$FQ1_t$ means the First Near Futures Contract. On any BNP Paribas Index Level Calculation Date t, $FQ1_t$ shall be the Euro-Buxl® Contract with the then-nearest Last Trade Date.

$FQ2_t$ means the Second Near Futures Contract. On any BNP Paribas Index Level Calculation Date t, $FQ2_t$ shall be the Euro-Buxl® Contract with the Last Trade Date immediately following that of $FQ1_t$.

Annex 2

Table 1 – BNP Paribas Index Components

	BNP Paribas Index Component	BNP Paribas Index Component Type	BNP Paribas Index Component Pricing Page	BNP Paribas Index Component Currency	BNP Paribas Index Component Weighting	Maximum Component Weighting	Minimum Component Weighting	Price Source/ Component Index Sponsor/ Exchange/ Fund Service Provider
1	Euro-Buxl® Futures Contract	Bond Contract	Bloomberg UB[M][YY] Comdty	EUR	N/A	N/A	N/A	Eurex