



ChinaBond China Green Bond Index Methodology

October, 2017

ChinaBond China Green Bond Index

ChinaBond China Green Bond Index is compiled by ChinaBond Pricing Center Co., Ltd. and CECEP Consulting Co., Ltd. The index constituents include bonds which are certificated “green” by third parties or whose use of proceeds, issuers’ industries, main business and major products disclosed in the issuance documents meet one of corresponding criteria in the “China Green Bond Endorsed Project Catalogue [2015 Edition]” (*The Green Finance Committee of China Society of Finance and Banking*, December 22, 2015), “Green Bond Issuance Guidelines” (*NDRCF [2015] No.3504, National Development and Reform Commission, December 31, 2015*), “Green Bond Principles, 2015” (*International Capital Market Association, March 27, 2015*) and “Climate Bond Standards” (*Climate Bonds Initiative, May 2015*).

1. Index Name

Chinese Name: 中债-中国绿色债券指数

English Name: ChinaBond China Green Bond Index

Total Return Index Ticker: CBA04901

2. Eligibility Criteria

2.1 Standard

Meet one of corresponding criteria in:

“China Green Bond Endorsed Project Catalogue [2015 Edition]”, *The Green Finance Committee of China Society of Finance and Banking*

“Green Bond Issuance Guidelines”, *National Development and Reform Commission*

“Green Bond Principles, 2015”, *International Capital Market Association*

“Climate Bond Standards”, *Climate Bonds Initiative*

2.2 Type of Bond

Including but not limit to: publicly issued Green Finance Bond, Policy Bank Bond, Corporate Bond, Enterprise Bond, Medium-Term Notes, etc.

2.3 Market

Interbank Market, Shanghai Stock Exchange, Shenzhen Stock Exchange

2.4 Minimum Size of Issuance

Unlimited

2.5 Maturity

More than one month (including one month), the maturity of embedded option bonds are based on ChinaBond Valuation.

2.6 Issuer Rating

Unlimited

2.7 Currency

Chinese Yuan (RMB)

2.8 Interest Type

Unlimited

2.9 Listing Requirements

Unlimited

2.10 Optionality

Including embedded option bonds

2.11 Price Source

Taking ChinaBond valuation (with 0.1% price deviation) as reference, the primary pricing source is the average price of reasonable optimal bid-ask prices. If such price is not available, the reasonable weighted average settlement price in the Interbank Bond Market shall be selected. If none of above is available, ChinaBond valuation price shall be used.

2.12 Weighting Methodology

Market Capitalization Weighted

3. Calculation

3.1 Base Date

Dec.31, 2009

3.2 Base Value

100

3.3 Calculation Frequency

Each Business Day of Interbank Market

3.4 Index Calculation

Total Return Index:

$$I_T^{TR} = I_{T-1}^{TR} \times \left\{ \sum_i \left[\left(\frac{P_{i,T}^F + Int_{i,T} + Pri_{i,T}}{P_{i,T-1}^F} \right) \times mW_{i,T-1}^F \right] + (1 + R_{T-1}) \times \sum_i cW_{i,T-1}^F \right\}$$

$$mW_{i,T-1}^F = \frac{MV_{i,T-1}^F}{\sum_i (MV_{i,T-1}^F + Cash_{i,T-1})}$$

$$cW_{i,T-1}^F = \frac{Cash_{i,T-1}}{\sum_i (MV_{i,T-1}^F + Cash_{i,T-1})}$$

$$Cash_{i,T} = (1 + R_{T-1}) \times Cash_{i,T-1} + Int_{i,T} + Pri_{i,T}$$

Where:

I_T^{TR} is total return index value on T day

$P_{i,T}^F$ is full price bond i on T day

$Int_{i,T}$ is interest payment of bond i on T day; it is 0 if there is no interest payment on T day

$Pr i_{i,T}$ is principal payment of bond i on T day; it is 0 if there is no principal payment on T day

$mW_{i,T-1}^F$ is full price market cap weight of bond i on T – 1 day

$cW_{i,T-1}^F$ is cash weight of bond i on T – 1 day

$MV_{i,T-1}^F$ is full price market of bond i on T – 1 day

R_{T-1} is daily interest rate of demand deposit on T – 1 day

$Cash_{i,T}$ is the accumulated cash of bond i on T day

Reinvestment methods: hold the interest and principal received during the calendar month in the form of demand deposit and then invest the accumulated cash in the bond portfolio on the last business day of such month.

Full Price Index:

$$I_T^F = I_{T-1}^F \times \sum_i \left(\frac{P_{i,T}^F + Pr i_{i,T}}{P_{i,T-1}^F} \times W_{i,T-1}^F \right)$$

Where:

I_T^F is full price index value on T day

$P_{i,T}^F$ is full price bond i on T day

$W_{i,T-1}^F$ is full price market cap weight of bond i on T – 1 day

$Pr i_{i,T}$ is principal payment of bond i on T day; it is 0 if there is no principal payment on T day

Net Price Index:

$$I_T^N = I_{T-1}^N \times \sum_i \left(\frac{P_{i,T}^N + Pr i_{i,T}}{P_{i,T-1}^N} \times W_{i,T-1}^N \right)$$

Where:

I_T^N is net price index value on T day

$P_{i,T}^N$ is net price bond i on T day

$W_{i,T-1}^N$ is net price market cap weight of bond i on T – 1 day

$Pr i_{i,T}$ is principal payment of bond i on T day; it is 0 if there is no principal payment on T day

4. Sub-index

Below 1 Year, 1-3 Year (including 1 Year), 3-5 Year (including 3 Year), 5-7Year (including 5 Year), 7-10 Year (including 7 Year), above 10 Year (including 10 Year)

5. Rebalancing

In principle, the constituents are rebalanced on the first business day of the Interbank Market each month. If one constituent becomes unqualified between two rebalancing days, it will be handled according to different situations.

In order to ensure the accuracy of the entrance and removal of constituents, the basis of rebalancing in each period is the bond data on 5 days before rebalancing day.

6. Index Release

The Index is released around 18:00 (Beijing time) on every business day of the Interbank Bond Market. The index is available on http://yield.chinabond.com.cn/cbweb-mn/indices/single_index_query, or through ChinaBond Integrated Business Platform and Data Download Channel for inquiry and unloading.

For concrete usage, refer to <http://datagate.chinabond.com.cn/datagate/> (Data Download Channel) or <http://www.chinabond.com.cn/cb/cn/xwgg/ggtz/zyjsgs/ywgg/zzyhywpt/list.shtml> (ChinaBond Integrated Business Platform). Clients may also look up and download the index through information vendors authorized by ChinaBond Pricing Center Co., Ltd.

Bloomberg Ticker: CBGGTRID

Thomson Reuter Ticker: CDCGBI

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