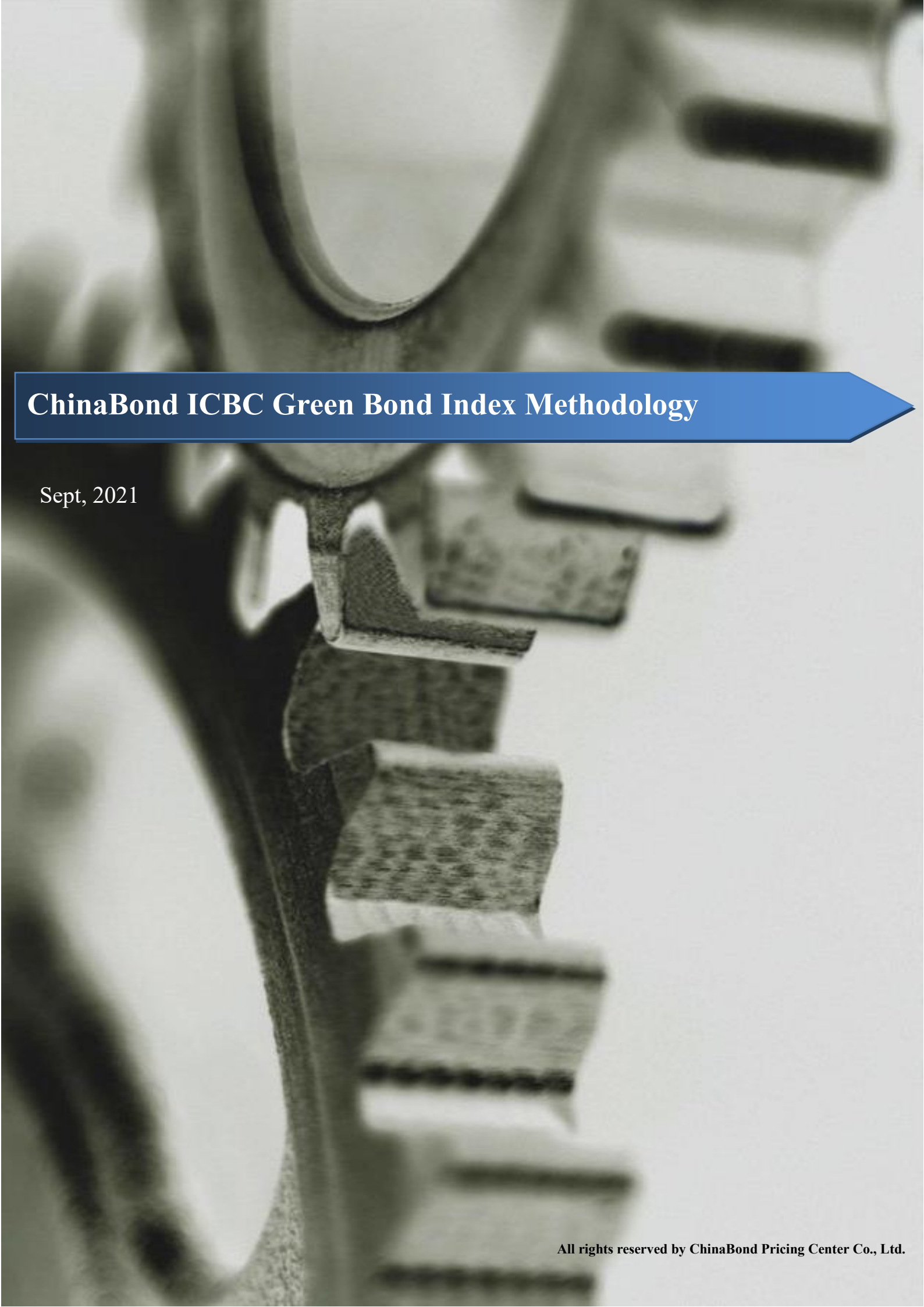


A close-up, black and white photograph of several interlocking metal gears. The focus is sharp on the teeth of the gears in the foreground, while the background is blurred. The lighting creates strong highlights and shadows, emphasizing the metallic texture and the mechanical nature of the scene.

ChinaBond ICBC Green Bond Index Methodology

Sept, 2021

ChinaBond ICBC Green Bond Index Methodology

ChinaBond ICBC Green Bond Index is a member of ChinaBond Custom Indices. Eligible constituents of the index include green bonds publicly issued in the China Interbank Bond Market with issuance size of no less than CNY 300 million and time to maturity of no less than 1 month. The index can be used as a benchmark or target of investment on such bonds.

1. Index Name

Chinese Name: 中债-工行绿色债券指数

English Name: ChinaBond ICBC Green Bond Index

ChinaBond Index Ticker: CBC03401

2. Eligibility Criteria

2.1. Standard

Green Bond Endorsed Projects Catalogue (2021 Edition), *jointly announced by the People's Bank of China (PBOC), the National Development and Reform Commission (NDRC) and the China Securities Regulatory Commission (CRSC)*¹

2.2. Bond Type

Green Finance Bond, Green Enterprise Bond, Green Debt Financing Instrument, Green Local Government Bond, etc. Subordinated Debt and Tier-2 Capital Instrument are excluded.

2.3. Market

China Interbank Bond Market

2.4. Issue Type

Publicly issued

¹ For bonds issued before the release of the Green Bond Endorsed Projects Catalogue (2021 Edition), refer to the Green Bond Endorsed Project Catalogue (2015 Edition), *PBOC* and the Green Bond Issuance Guidelines, *NDRC*.

2.5. Size of Issuance

No less than CNY 300 million

2.6. Time to Maturity

No less than 1 month

2.7. Currency

CNY

2.8. Interest Type

Fixed coupon rate, Pay at maturity, Discounted rate

2.9. Listing Term

Unlimited

2.10. Optionality

Bonds with embedded option are excluded

2.11. Price Source

If market price is within $\pm 0.1\%$ deviation from ChinaBond Valuation's price, market price shall be selected as the primary pricing source; if market price is not within $\pm 0.1\%$ deviation from ChinaBond Valuation's price or is not available, ChinaBond Valuation price shall be used. Same bond traded in different markets will be treated as different bonds.

2.12. Weighting Methodology

Market capitalization weighted. The maximum market capitalization weight of a single issuer is 10%, and if the market capitalization weight of an issuer exceeds 10%, the weight will be compressed to 10%.

3. Calculation

3.1. Base Date

Dec 31, 2017

Base point value: 100

3.2. Calculation Frequency

Each business day of China Interbank Bond Market

3.3. Index Calculation

3.3.1. Total Return Index

$$I_T^{TR} = I_{T-1}^{TR} \times \left[\sum_i \left(\frac{P_{i,T}^F + \text{Pri}_{i,T} + \text{Int}_{i,T}}{P_{i,T-1}^F} \times \frac{MV_{i,T-1}^F}{\sum_j (MV_{j,T-1}^F + \text{CASH}_{j,T-1})} \right) + (1 + DR_{T-1}) \times \frac{\sum_i \text{CASH}_{i,T-1}}{\sum_j (MV_{j,T-1}^F + \text{CASH}_{j,T-1})} \right]$$

Where:

$$Vol_{i,M-1}^* = Vol_{i,M-1} \times W_J \times \sum_i (P_{i,M-1}^F \times Vol_{i,M-1}) / \sum_{i \in J} (P_{i,M-1}^F \times Vol_{i,M-1})$$

$$MV_{i,T-1}^F = P_{i,T-1}^F \times Vol_{i,M-1}^* / 100$$

$$\text{CASH}_{i,T-1} = \text{CASH}_{i,T-2} \times (1 + DR_{T-2}) + \sum_i Vol_{i,M-1}^* \times (\text{Pri}_{i,T-1} + \text{Int}_{i,T-1}) / 100$$

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

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

$\text{Pri}_{i,T}$ is principal repayment of bond i on T day

$\text{Int}_{i,T}$ is interest payment of bond i on T day

$\text{CASH}_{i,T-1}$ is the accumulated cash flow of bond i on T-1 day within the month

$Vol_{i,M-1}$ is the balance of bond i on the last working day of previous month

$Vol_{i,M-1}^*$ is open interest, adjusted based on customized weight, of bond i on the last working day of previous month

W_j is customized weight of type J bonds

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

DR_T is current deposit interest rate on T day; $DR_T = R/360$ if assuming current deposit interest rate is R on T day

3.3.2. Full Price Index

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

Where:

I_T^F is full price index value on T day

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

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

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

3.3.3. Flat Price Index

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

Where:

I_T^N is net price index value on T day

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

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

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

4. Sub-index

No sub-index

5. Rebalancing

The index is rebalanced monthly on the first business day of each month. Unqualified bonds will be processed according to the specific situation between two routine intervals.

6. Data Release

The index is released around 18: 00 (Beijing time) on every business day of the China Interbank Bond Market. The index is available through http://yield.chinabond.com.cn/cbweb-mn/indices/single_index_query, or through ChinaBond Intergrated 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/zzzhywpt/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.

7. Contacts

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Quality Control: 010-88174712 021-60813562
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