# ETF STRATEGY

The db x-trackers II Harvest CSI China Sovereign Bond UCITS ETF passively tracks the CSI Gilt-Edged Medium Term Treasury Note Index by using an optimized replication strategy. The Index includes tradable debt issued by the government of the People’s Republic of China and traded on the Shanghai Stock Exchange, Shenzhen Stock Exchange, and the PRC inter-bank bond market. The bonds have remaining maturity between 4 and 7 years, bear fixed rate interest and are denominated in Yuan.

Around 95% of all sovereign debt trading volume occurs on the inter-bank bond market, rather than on the Shanghai Stock Exchange or the Shenzhen Stock Exchange. The Investment Manager, Harvest Global Investments Limited, is an RQFII license holder, and manages many of Deutsche Bank’s other Chinese ETF products.

The index is in Yuan, while the ETF is quoted in USD.

Current Holdings: (maturity and yield statistic for individual bonds not available)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Name** | **Currency** | **Type of Security** | **Weighting** |
| 1 | CHINA GOVERNMENT BOND | CNY | Bond | 23.32% |
| 2 | CHINA GOVERNMENT BOND | CNY | Bond | 23.32% |
| 3 | CHINA GOVERNMENT BOND | CNY | Bond | 17.34% |
| 4 | CHINA GOVERNMENT BOND | CNY | Bond | 17.30% |
| 5 | CHINA GOVERNMENT BOND | CNY | Bond | 11.76% |
| 6 | CHINA GOVERNMENT BOND | CNY | Bond | 5.88% |
| 7 | YUAN RENMINBI | CNY | Cash | 1.09% |

Replication Strategy:

The strategy utilizes optimized sampling to match the yield, duration, and other portfolio characteristics of the index. The fund currently holds 6 individual bond holdings versus 34 bond holdings for the Index. An optimized strategy is used instead of full replication due to:

1. Liquidity: Liquidity is concentrated in on-the-run government bonds, while the Index is composed of all fixed-rate PRC sovereign bonds with remaining maturity between 4 and 7 years, many of which are not well-traded. Investors of PRC sovereign bond holdings tend to be long-term buy-and-hold institutions/banks.
2. Lot sizes: Given the small size of the fund, it is difficult to purchase a larger number of individual bonds as the minimum lot sizes tends to be rather large (i.e. min of 10MM RMB).
3. Legacy: Historically, most ETF products with exposure to Chinese fixed income have used an optimization strategy to track their respective indices.

Expected NAV Tracking error: **2%**

The fund is expected to experience a higher level of tracking error than that of other fixed income ETFs due to its optimized strategy. However, long-term return differences are expected to be lower.

Operations:

PRC Government Bonds are registered in the name of the RQFII investment manager and the ETF, and maintains in electronic form via a securities account with the China Securities Depository and Clearing Corporation Limited ("CSDCC") for the exchange-traded bond market and with China

Central Depository & Clearing Co., Ltd ("CCDC") or the Shanghai Clearing House ("SCH") for the inter-bank bond market.

The Investment Manager has entered into a custodian agreement in relation to the ETF’s assets with a custodian (the "PRC Custodian"), which shall maintain the Sub-Fund’s assets in custody in accordance with the terms of such PRC Custody Agreement.

# UNDERLYING ASSETS

The Reference Index measures the performance of fixed-rate interest bearing PRC Government Bonds with a term to maturity of over 4 years and less than 7 years traded on the Shanghai Stock Exchange, Shenzhen Stock Exchange and PRC inter-bank bond market. Most of the trading volume is concentrated on the PRC inter-bank bond market, which is facilitates OTC trading between financial institutions at much faster settlement timeframe. The Index currently holds 34 bonds with duration of 4.8 years and yield of 3.2%.

The onshore Chinese government bond market is much larger and more liquid than the offshore (dim sum market). The current amount outstanding as of May for the onshore market is $1.5Tr vs. $15Bn for the offshore market, and $3.2Bn in daily secondary trading vs. ~$150MM.

# RETURNS



# CORRELATION

**CSI China Sovereign index vs. major Equity and Fixed Income indices**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **3-year** | | **5-year** | |
| **Fund vs. Equity Indices** | **USD Term Correl** | **Local Currency**  **Correl** | **USD Term Correl** | **Local Currency**  **Correl** |
| S&P 500 | 0.07 | 0.07 | 0.11 | 0.11 |
| MSCI EM | 0.13 | 0.08 | 0.08 | -0.06 |
| MSCI ACWI | 0.07 | 0.08 | 0.09 | -0.06 |
| MSCI Europe | 0.00 | 0.09 | 0.09 | 0.04 |
| CSI 300 | -0.03 | -0.03 | -0.12 | -0.12 |
| **Fund vs. Fixed Income Indices** |  |  |  |  |
| Barclays US Agg Bond | 0.25 | 0.25 | 0.19 | 0.19 |
| Credit Suisse HY | 0.20 | 0.20 | 0.17 | 0.17 |
| JPM GBI Emerging Global Diversified | 0.23 | 0.21 | 0.14 | 0.14 |
| JPM GBI Global | 0.03 | 0.03 | 0.20 | 0.20 |
| Barclays Euro Agg Govt | 0.06 | 0.06 | 0.15 | 0.13 |
| Barclays Global Aggregate | 0.08 | 0.08 | 0.18 | 0.18 |
| Barclays Multiverse | 0.09 | 0.09 | 0.19 | 0.19 |