

Swap Connect Series: RMB Interest Rate Swap Market

Following the launch of "Stock Connect", "Bond Connect" and "Cross-border Wealth Management Connect", the interconnection and cooperation between China's Mainland and Hong Kong SAR in the capital market has developed rapidly in recent years. "Swap Connect" is a new milestone in deepening connectivity between China's Mainland and global markets.

"Swap Connect" will be a new channel and the world's first derivatives market access scheme allowing international investors to trade and clear onshore RMB interest rate swaps (IRS) in China's Mainland without changing their existing trading and settlement practices. It will provide more abundant risk management tools for international investors to trade onshore China fixed income securities.

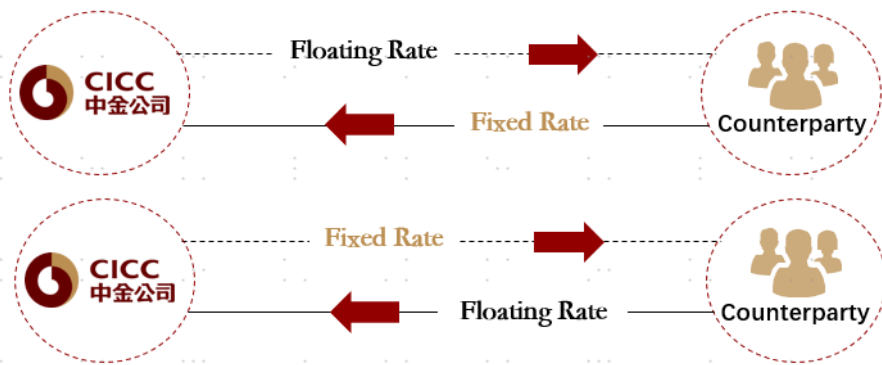
At its initial stage, "Swap Connect" will allow "Northbound Trading" in which international investors could trade, settle and clear domestic financial derivatives through infrastructures between Chinese Mainland and Hong Kong SAR. The currently available product is IRS and others may come soon according to market conditions. "Northbound Swap Connect" will be quoted, traded and settled in RMB.

In this episode, we will further introduce the onshore RMB interest rate swap market.

I. Introduction of Interest Rate Swaps

An interest rate swap is a forward contract in which one stream of future interest payments is exchanged for another based on a specified principal amount. Interest rate swaps usually involve the exchange of a fixed interest rate for a floating rate, or vice versa. Interest rate swap is one of the most widely used interest rate derivatives in the financial market and is a very effective hedging tool for corporate and institutional investors to manage interest rate risk.

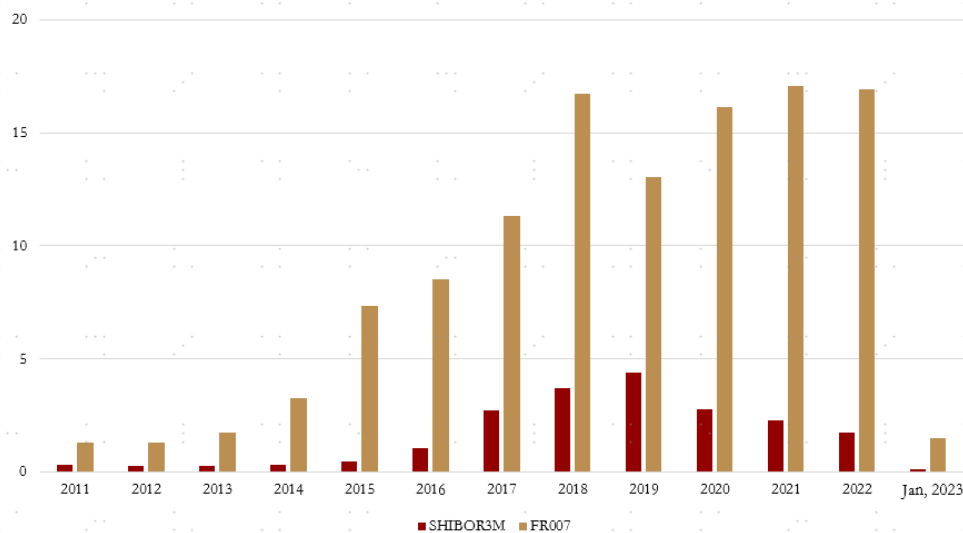
There are three different types of interest rate swaps: Fixed-to-floating, fixed-to-fixed, and floating-to-floating. Interest rate swaps help investors turn their floating-rate asset/liabilities into fixed-rate asset/liabilities. In this way, investors could hedge interest rate risks, lower their financing cost and flexibly manage their assets and liabilities.



II. The main types of Interest Rate Swap

According to the China Foreign Exchange Trade System (CFETS), RMB interest rate swaps are the most actively traded interest rate derivatives in China's interbank bond market, with an average daily trading volume of over RMB 80 billion. The reference rates for onshore IRS include FR007, SHIBOR3M, SHIBOR O/N, LPR 1Y, LPR 5Y, etc. The relatively actively traded interest rate swap contracts are FR007 and SHIBOR3M.

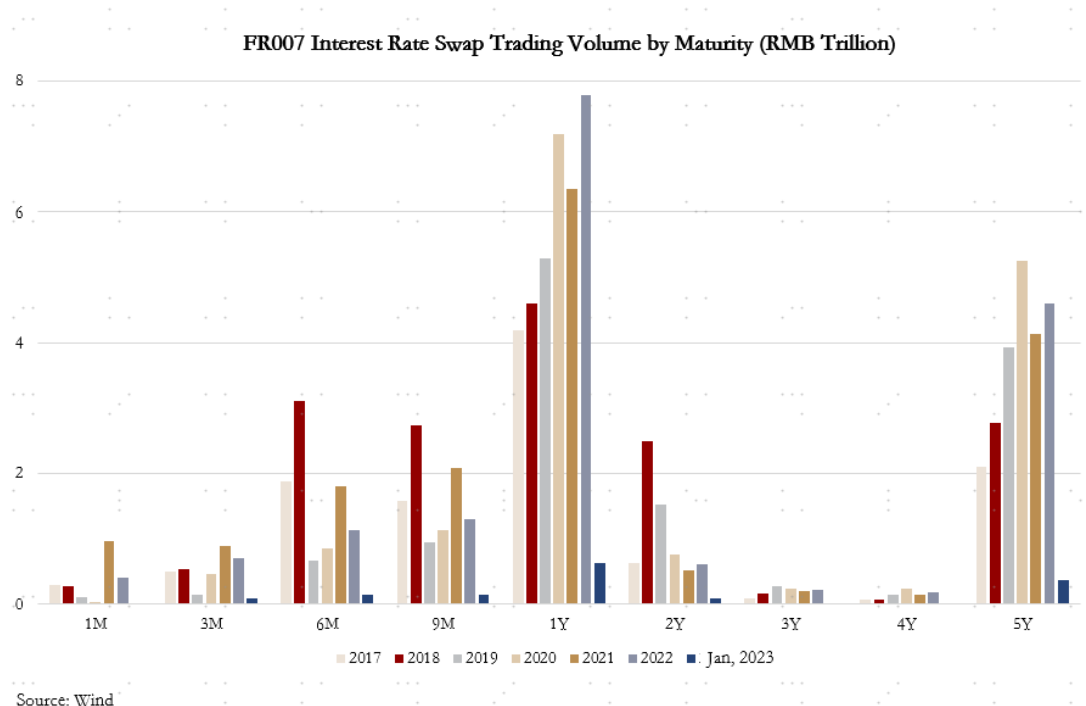
FR007 & SHIBOR3M Interest Rate Swap Annual Trading Volume (RMB Trillion)



Source: Wind

Interest rate swap based on FR007 is currently the most actively traded contract, which could timely reflect the fluctuation of market liquidity and the funding cost of institutions. The swap curve of interest rate swap based on FR007 extends to 10 years,

but the actively traded ones are those with maturities within 5 years, especially the 6-month, 1-year and 5-year contracts.



"Northbound Swap Connect" follows the current policy framework of opening China's interbank financial derivatives market to the world. This mechanism allows international investors to execute trades and hedge risks while they remain offshore and using rules and mechanisms that they are familiar with. Initially, the underlying tradable products are standard interest rate swaps, and other products may be introduced later.

III. Functions of Interest Rate Swaps

- **Risk management:** For bond investors, interest rate swaps could reduce the risk of higher interest rate for the cash bond bulls, hence hedging risk is also one of the most important functions of IRS.
- **Price discovery:** The trading price of interest rate swap reflects a considerable extent expectation of future reference rate, which is forward-looking and acts as a price revealer in most cases due to the strong trading-oriented and institution-driven features.

Case example: Risk management on investors' asset side

Background: For investors holding fixed-rate assets, rising market rates may lead to a drop in the valuation of asset portfolios, thereby causing losses

Solution: Bond investors could enter an interest rate swap transaction with a financial institution (counterparty). Under the terms of agreement, they would pay counterparty a fixed interest and receive the market-to-market income when interest rate rises, avoiding the impact on asset fair value brought by market fluctuations.

[Case--Fixed-rate Assets]

Case: Assuming an investor's current portfolio consists of a RMB100 million face value 1-Year China Development Bank Bond (230201.IB), which has a DV01 of 0.96 per RMB 10,000 face value. The investor reduces the portfolio DV01 to 0 by using an interest rate swap linked to FR007 1Y.

Suppose the IRS contract has a DV01 of 0.96 per RMB10,000 notional principal.

Duration	1 year
Notional Principal Amount	RMB 100 million
Reference Rate	FR007
Reset Frequency	Week
Counterparty Pay	reference rate* notional principal amount* day count fraction
Investor Pay	2.42%* notional principal amount* day count fraction



Position Types	Bond	Interest Rate Swap
Position	1-Year CDB(230201.IB)	FR007 1Y IRS
Face Value (¥10,000)	10,000	10,000
Unit DV01(¥1/10,000)	0.96	0.96
Total DV01 (¥10,000)	0.96	0.96
Portfolio DV01	0	
Portfolio Cashflow	(Bond Gain - Swap Rate) + (FR007 - Funding Cost)	

*This case example is adapted from [*In-depth Research: The Interest Rate Derivatives Market with Increasingly Improved Functions and Structures - An Analytical Framework for Interest Rate Derivatives*]

Disclaimer

Information, data, trading structure and other contents shown in this case are for reference only and do not constitute investment advice. This case example is for illustrative purposes only and does not constitute a binding legal document such as solicitation, offer, invitation to offer, or promise to buy or sell securities or other financial products or to participate in any particular trading strategy. Investors should be fully aware of the rules and risks of relevant transactions and make prudent decisions based on their own risk tolerance and investment objectives.