Malaysian Journal of Social Sciences and Humanities (MJSSH) (e-ISSN : 2504-8562)
2022, Volume 7, Issue 7, e001712
DOI: https://doi.org/10.47405/mjssh.v7i7.1712

A Case Study of Interbank Deposit Fund Market: Sustainable Emerging Markets in China

Ren Tianyi[1], Tajul Ariffin Bin Masron[2]

[1]School of Management, Universiti Sains Malaysia,11800 Penang, Malaysia.
Email: rentianyi@student.usm.my
[2]School of Management, Universiti Sains Malaysia,11800 Penang, Malaysia.
Email: tams@usm.my

CORRESPONDING AUTHOR (*):
ZhangZhen
(101502@uzz.edu.cn)

KEYWORDS:
Interbank Certificates of Deposit
Development
Profit model
Future outlook

CITATION:
Ren Tianyi & Tajul Ariffin Masron. (2022). A Case Study of Interbank Deposit Fund Market: Sustainable Emerging Markets in China. *Malaysian Journal of Social Sciences and Humanities (MJSSH), 7*(7), e00712. https://doi.org/10.47405/mjssh.v7i7.1712

ABSTRACT

The first batch of interbank deposit funds was issued in China on December 3, 2021, and three batches of interbank deposit funds were issued in China as of May 2022, totaling 17 funds. As an emerging market, the interbank deposit fund market is a gap area of academic research. This paper analyzes the background of the development of the interbank deposit fund market in China, summarizes the current development of interbank deposit funds based on relevant data, introduces the specific profit model of interbank deposit funds, and explains their main advantages over short-dated bond funds and money funds. At the same time, this paper also discusses the main constraints faced by interbank depository funds, proposes corresponding solutions, and looks into the future development direction of China's interbank depository fund market. The above research plays a role in the sustainable development of the interbank depository fund market.

Contribution/Originality: This study analyzes the background of the interbank deposit fund market in China, highlights its current development based on relevant statistics, introduces its distinctive profit model, and discusses its primary benefits over short-term bond and money funds. This study also addresses the main interbank depository fund restrictions, provides alternatives, and looks at the market's future evolution.

1. Introduction

As of March 2022, interbank certificates of deposit have been issued 1,477, the issue size of more than a trillion, amounting to 118.7770 billion yuan, of which small and medium-sized banks have become the main force of this year's issue. Data show that in March, the interbank certificates of deposit issue scale of joint-stock banks amounted to 332.46 billion yuan, city merchant banks, the issue scale amounted to 275.91 billion yuan. At present, interbank certificates of deposit can get rapid development mainly for the following reasons.

© 2022 by the authors. Published by Secholian Publication. This article is licensed under a Creative Commons Attribution 4.0 International License (CC BY).

1.1. Interest rate market reform is profoundly advanced

Interbank certificates of deposit are book-entry time deposit certificates issued by depository financial institutions in the national interbank market, which are neither interbank deposits nor bonds but a money market instrument. Generally, the term of interbank certificates of the deposit does not exceed one year, and is one month, three months, six months, nine months, and one year, and may bear interest at fixed or floating rates. The issuers of interbank certificates of deposit are depository financial institutions, including commercial banks, policy banks, rural cooperative financial institutions, and others. The investors include fund management companies and fund products, members of the national interbank lending market (depository financial institutions, insurance companies, securities companies, etc.), foreign financial institutions, and other institutions approved by the central bank. In simple terms, interbank certificates of deposit are certificates of deposit circulating among financial institutions and earning interest income.

Although they are all financial institutions, there are large and small scale, even banks, resources are not the same, and the cost of access to funds is not the same. Large banks have a lot of low-cost funds that need to be invested in products with low credit risk, and interbank certificates of deposit from small banks are a good choice. Once small banks get the money, they will find ways to invest in higher-yielding interbank wealth management and other products. They will even invest the funds obtained from interbank certificates of deposit in interbank certificates issued by other institutions with higher interest rates. Someone can also get through maturity mismatches when short-term funds are invested in long-term projects.

Compared with deposits, interbank certificates of deposit will not be withdrawn in advance, high stable, and are subject to fewer regulatory restrictions. For example, not subject to the "single commercial bank interbank integration balance shall not exceed one-third of the bank's total liabilities" restriction. Therefore, the scale of issuance has been expanding. The rise of interbank certificates of deposit follows the historical trend of interest rate marketization in China. It is an essential and indispensable part of the interest rate market in the reform process. The interbank deposit fund has enriched the financing channels of interbank deposits and plays an essential role in promoting the interest rate market in China.

1.2. The absence of long-term investment targets and interest rates in the money fund market

Compared to traditional money funds, which must have a position portfolio duration of 180 days or less, the duration of interbank deposit funds is within one year. The longer the maturity of the bonds and notes invested by the fund, the higher the yield will be in general, which is the same as the longer the maturity of bank wealth management. The emergence of interbank deposit funds has made the interbank deposit market more complete and market-oriented. The money fund market needs open and transparent, observable medium and long-term interest rates and investment targets. The need for the development of interbank certificates of deposit funds is self-evident.

The interbank certificate index fund is an innovative product in the public offering market, mainly designed to meet the needs of investors with low-risk appetites and

© 2022 by the authors. Published by Secholian Publication. This article is licensed under a Creative Commons Attribution 4.0 International License (CC BY).

flexible allocation. It is between money funds and short bond funds, which will further enrich the cash management products in the public offering market.

1.3. Continued downward movement of the risk-free rate pivot as the market seeks higher-yielding cash management products

Since the beginning of 2022, China's capital market has continued to be turbulent under multiple factors such as the Russia-Ukraine conflict, the Fed's interest rate hike, the recurring epidemic in China, and the economic downturn. The stock market is experiencing a sharp decline. The bond market is continuing to adjust, which has had a significant negative impact on the performance of funds and wealth management products. As for the wealth management market, more than 2,000 wealth management products sold by Chinese banks from January to March 2022 alone showed a floating loss. The Shanghai Stock Exchange Index fell 15.19% for the stock market, the Shenzhen Stock Exchange Index fell 25.61%, the Growth Enterprise Market Index fell 30.88%, and the CSI 300 fell 18.77% from January to April 2022. In addition to the traditional energy industry, mainly oil and gas and coal, the current market is close to the market's general decline in stock losses of 10 points of investors abound. In the bond market, the SSE Convertible Bond Index fell 8.4% from January-April 2022. With such a market, idle funds in the market have nowhere to go, and most investors with low-risk tolerance start looking for more stable investment tools—currently, only money funds to undertake this kind of demand in the background. Interbank depository receipt index funds can effectively supplement cash management products to provide investors with another flexible choice. Furthermore, interbank certificate funds, giving retail customers a low-volatility, higher-return investment option like a cash fund, are essential for achieving financial inclusion.

1.4. Commercial banks' liquidity management pressure tends to increase

On the asset side, the main assets of commercial banks are loans, bonds, interbank assets, etc. Most of the assets have long maturities, and the liquidity of assets is not high overall, except for high-quality bonds. On the liability side, banks' traditional sources of liabilities are mainly deposits. However, deposits are now facing a drain, the volatility of liabilities is significantly higher than in the past, and commercial banks have relatively limited means of long-term liabilities. The above two factors make the asset-liability structure of commercial banks inevitably mismatched, with the duration of assets far greater than that of liabilities. At the same time, Internet finance has enriched the channels of payment and settlement, thus making it significantly more difficult for commercial banks to manage their liquidity and with an incentive to broaden the financing channels of interbank certificates of deposit.

1.5. The rapid development of the interbank certificate market, in line with the fund's allocation requirements

A report titled "About the interbank certificate of deposit fund, please don’t listen to the legend" written by Summer (2022) mentioned that since the first batch of interbank certificates of deposit were issued in 2013, the interbank certificate of deposit market has entered a rapid development stage. Wind data show that as of the end of April 2022, the stock size of interbank certificates of deposit reached 14.48 trillion yuan, accounting for 10.76% of the bond market balance, which can meet the allocation needs of relevant funds. In the most recent year to the end of April 2022, the combined turnover of interbank certificates of deposit reached 47.60 trillion yuan, accounting for 19% of the

© 2022 by the authors. Published by Secholian Publication. This article is licensed under a Creative Commons Attribution 4.0 International License (CC BY).

bond market turnover, with good liquidity. The market size of money-type funds has grown explosively over the past ten years and now exceeds 10 trillion yuan. In the market of low-risk appetite, the market urgently needs a class of products to undertake the scale of money fund spillover. The stock size of interbank certificates is 14.4 trillion, which is nearly three times the credit bond within one year. Because of its relatively high returns, low volatility, and good liquidity characteristics, the deposit fund becomes an essential target for undertaking the scale of money fund spillover.

2. Value of the study

In essence, interbank certificates of deposit are an innovative money market instrument that can be traded and transferred and used as the underlying asset for repurchases. With the continuous improvement of the whole set of interbank certificates of deposit system, the investment and financing products available to banks can be enriched accordingly. The financial market activity and the interest rate marketization process can be significantly enhanced accordingly. On the one hand, the launch of interbank deposit funds is significant in promoting the process of interest rate marketization. On the other hand, it also plays a significant role in promoting commercial banks' business model transformation. However, interbank deposit funds as a financial innovation product with distinctive Chinese characteristics in China's development history is still very short. The Chinese domestic theoretical attention to its degree also needs to be strengthened. In order to make up for the shortcomings of the interbank deposit fund market, this thesis takes the interbank deposit fund market as the research object.

2.1. Questions to ask

"Why has the interbank depository fund market become a key part of the money market instruments in China's sustainable emerging market?"

In response to the current rapid growth of the interbank depository fund market, this question will become an important one that cannot be avoided. This study will analyze the specific profitability model of interbank depository funds to summarize their main advantages over short-term debt funds and money funds. The main constraints faced by interbank depository funds need be based on the current research and development status, and propose corresponding countermeasures. We also propose corresponding countermeasures for them.

3. Literature Review

3.1. Current status of research

A number of Chinese scholars have previously explored this topic.

Chen et al. (2021) stated that the excessive reliance on wholesale financing for regulatory arbitrage by financial institutions with opaque assets is detrimental to the prevention and control of systemic risk. Against this background, this paper firstly introduces correlations based on the classical bank moral hazard model to analyze the underlying mechanism of systemic risk accumulation in banks from the perspectives of asset transparency and regulatory arbitrage. The paper then constructs asset transparency indicators and systemic risk indicators (SRISK, MES) using micro data of Chinese listed banks from 2007-2018 to empirically test the theoretical inferences.

© 2022 by the authors. Published by Secholian Publication. This article is licensed under a Creative Commons Attribution 4.0 International License (CC BY).

Ge Yan (2014) pointed out that interbank certificates of deposit are a kind of deposit certificates issued by banks to absorb funds, which are allowed to circulate and transfer in the financial market. Interbank certificates of deposit are usually seen as large-time deposits that can be traded and transferred as a vital part of the interest rate marketization process. Interbank certificates of deposit, issued by commercial banks in the interbank market, are the product of interbank certificates of deposit carried out among financial institutions and belong to the money market instruments, a kind of time deposit certificate. The authors summarize the current problems in the issue management of interbank certificates of deposit from two aspects, such as the subjects that can participate in the issue and investment and the marketization of the issue method. Moreover, focusing on five aspects, such as diversified investment of bank funds, improving the standardization of interbank business, strengthening the level of banks' active management of liabilities, enhancing the level of banks' management of liquidity risk, and improving the market-oriented interest rate formation mechanism, the authors analyze the impact of interbank certificates of deposit on the transformation of interbank business. The development of commercial bank operations and the overall market interest rate system impact. This thesis focuses more on the impact of specific financial institutions turning to interbank business.

Yao and Hui (2017) analyzed the characteristics of interbank certificates of deposit, the supply and demand of the main body and market driving force, the interbank funding chain, and the potential risk potential from the market environment interbank certificates of deposit. These characteristics can only gradually return to the active liability management function of interbank certificates of deposit, strengthen supervision and liquidity risk monitoring, and restore the business origin to achieve transparent and controllable risk. To achieve their standardized development and financial deleveraging. This thesis emphasizes the risk, the risk monitoring, and the creation of the corresponding system for the risk. However, it does not point out the advantages and disadvantages of interbank depository receipts. The ultimate goal of interbank depository receipts regulation is to build a sound and sustainable emerging market at the level of monitoring interbank depository receipts.

Long Yi and Hui Zhang (2017) analyzed the market background of developing interbank certificates of deposit in China. They summarized the development status of interbank certificates of deposit based on relevant data, introduced the specific operation mode of interbank certificates of deposit, and elaborated its advantages over other interbank businesses. This paper is an excellent introduction to the development status and history of interbank certificates of deposit. However, there is no further analysis of its constraints, and the time is also five years from now. The market background and development status at that time can only be a particular reference. The current situation needs to be reorganized and analyzed.

Liu Shida et al. (2017) studied the interbank deposit market with Chinese characteristics using interbank deposit data from the first quarter of 2013 to 2017. The significant difference between an interbank deposit and its international counterpart product, large negotiable certificates of deposit, is the fundraising of interbank deposit. It is only for financial institutions and not for other companies which make interbank. There is a gap between the interbank certificates of deposit and the actual deposit interest rate market. This makes the interbank certificates of deposit, and the actual deposit interest rate market still gap.

© 2022 by the authors. Published by Secholian Publication. This article is licensed under a Creative Commons Attribution 4.0 International License (CC BY).

Moreover, some problems with interbank certificates of deposit, such as interbank certificates of deposit, did not break through the deposit interest rate control and interbank certificates of deposit arbitrage problems. They are serious, policy environment and tight funding market, small and medium-sized banks are more impact. This paper points out the problems of interbank certificates of deposit, which is the value of this paper, but its reference data is too one-sided.

Jiang et al. (2020) highlighted the double difficulties small and medium-sized banks face in issuing interbank deposit certificates, i.e., high cost and low issuance rate. From the point of view of the cost of issuing certificates of deposit, small and medium-sized banks have limited financing capacity and small asset size, they will rely more on certificates of deposit compared to large banks. However, the cost of issuing certificates of deposit is higher due to the higher credit risk of small and medium-sized banks. When small and medium-sized banks raise funds at a high cost to issue certificates of deposit if the profits are not enough to cover the cost of certificates of deposit when they expire, there is a certain pressure to repay the cost of reissuing certificates of deposit will progress up. Highlight the problems faced by small and medium-sized banks interbank certificates of deposit, but with the introduction of the corresponding national policy, the issue of small and medium-sized banks' interbank certificates of deposit in gradually improved.

Guo et al. (2021) confirmed that the interbank deposit rate has good benchmarking in the medium and long term from 3 months to 1 year. It also systematically elaborates that the interbank deposit rate has the advantages of a good trading base, continuous data, responsiveness to monetary policy, and a strong correlation with deposit and loan rates. In contrast, with the robust development of the market, the interbank deposit rate has good benchmarking in the medium and long term. This paper systematically analyzes the issues related to the interbank deposit rate. However, it does not comprehensively analyze the characteristics of interbank deposits and the problems of how to build a perfect interbank deposit fund market, etc.

In addition, a number of foreign scholars have also carried out relevant studies. Allen et al. (2014) studied the transnational transmission of liquidity shocks. Their results showed that a subsidiary's lending decline is linked to its parent bank's interbank lending. Chen et al. (2013) studied the influence of monetary policy tools on interbank lending rates and retail bank lending in China (2009). Unlike central banks in industrialised economies, the PBoC changes regulated deposit and lending rates and loan goals to get involved in the retail deposit and lending market. Coen (2020) observed that the decentralised interbank network is inefficient because banks don't completely internalise a network externality in which their interbank ties harm other banks' default risk. A social planner could raise the interbank surplus by 13% without increasing the average bank default risk or lower it by 4% without reducing the surplus. De Lisa et al. (2011) noted that the existing Italian deposit insurance scheme can only be deemed acceptable in normal market conditions, not in adverse market conditions with major bank contagion. Hannam (2013) said money market funds are sensitive to investors' unforeseen behaviour amid a market crisis. Money market funds may amplify systemic risk in such situations. Jiang et al. (2022) calibrated a model using Chinese listed bank data. According to a counterfactual experiment, closing the interbank market will reduce NIM and bank earnings. According to our findings, the interbank market can facilitate specialisation and lessen deposit competition.

© 2022 by the authors. Published by Secholian Publication. This article is licensed under a Creative Commons Attribution 4.0 International License (CC BY).

Macedo and Troster (2021) identified two forms of liquidity shocks: deposit flight and cash-flow shocks (an increase in non-performing loans). They found that the source of a liquidity deficit is the major predictor of banks' interbank lending decisions, not the extra cash banks need to cover. When foreign investors buy domestic banks, their network architecture shifts, according to Sümer and Özyıldırım (2019). They found local and Basel III laws have a substantial effect on network structure through liquidity channels. Highly liquid large banks and well-capitalized non-large banks have concentrated in the interbank security market.

3.2. Actual development status

3.2.1. High market acceptance and rapid growth in scale.

The current layout of the interbank deposit fund is mainly for retail customers. Because of the A-share market shock, major bank channels are also very short of low-risk products, the interbank depository index fund fills the gap in this market, and investor acceptance is high.

On December 3, 2021, China's first batch of interbank deposit funds was issued, with the first six products issued with a total size of 15.239 billion yuan. The second batch of interbank deposit funds issued, China Merchants Fund, Huaxia Fund, and Ping An Fund's products raised in the tens of billions levels. As of May 2022, the third batch of interbank deposit funds will be approved, with a limit of 60 billion yuan. In the relative downturn of the new fund issue market conditions this year, the interbank depository fund issue results are still good.

3.2.2. Issue term structure is mainly short-term.

Wind data showed 17 interbank depository funds in the market as of May 23, 2022. Among them, 16 have a 7-day holding period, and 1 has a 30-day holding period and can be redeemed after the minimum holding period, which shows that the current issue term structure of interbank depository funds is mainly short-term, which can be seen in Table 1.

Table 1: Interbank Depository Receipt Index Fund Holding Duration Statistics

Fund Name	Holding period
Wisers CSI Interbank Depository Receipts AAA Index Fund (014426)	7 days
Penghu CSI Interbank Depository Receipts AAA Index Fund (014437)	7 days
China Southern CSI Interbank Depository AAA Index Fund (014430)	7 days
Quam Securities CSI Interbank Depository AAA Index Fund (014429)	7 days
AVIC CSI Interbank Depository AAA Index Fund (014428)	7 days
Guangfa CSI Interbank Depository Receipts AAA Index Fund (015826)	7 days
China Europe CSI Interbank Depository AAA Index Fund (015827)	7 days
Yinhua CSI Interbank Depository Receipts AAA Index Fund (015823)	7 days
Guotai CSI Interbank Depository Receipts AAA Index Fund (015825)	7 days
Bosera Monthly Interbank Depository Receipts 30 Days Holding Period Hybrid Fund (015824)	30 days
China Merchants CSI Interbank Depository AAA Index Fund (015643)	7 days
Fortune CSI Interbank Depository AAA Index Fund (014427)	7 days
Huaxia CSI Interbank Depository AAA Index Fund (015644)	7 days

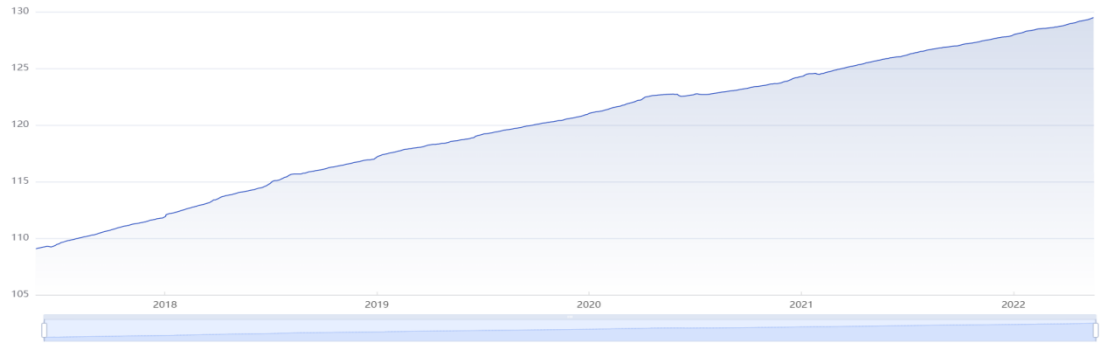
© 2022 by the authors. Published by Secholian Publication. This article is licensed under a Creative Commons Attribution 4.0 International License (CC BY).

CICC CSI Interbank Depository AAA Index Fund (015646)	7 days	
BOCOM CSI Interbank Depository AAA Index Fund (015648)	7 days	
Ping An CSI Interbank Depository Receipts AAA Index Fund (015645)	7 days	
Chunghwa CSI Interbank Depository Receipts AAA Index Fund (015647)	7	days

3.2.3. The high degree of marketization of issuance rates

Data from CSI Index Company show that from May 24, 2017, to May 24, 2022, the CSI Interbank Depository AAA Index (code 931059) for the past five years has an annualized return of 3.5%, 2.96% for the past three years, and 2.95% for the past year, with a convexity of 0.361 (Figure 1). This shows that the index has grown more without significant rutting.

Figure 1: Trend of CSI Interbank Depository Receipts AAA Index in the past five years



4. Methodology

This study mainly adopts the literature research method and logical analysis method. The literature research method is mainly manifested in this study before writing, exhaustively collecting, and reading a large number of the latest literature. The study is based on the latest research results, policy changes, directional dynamics of the interbank deposit field, and the classical discussions of previous authors and is organized, refined, and summarized.

The logical analysis method is mainly manifested by theoretical knowledge of economics, finance, financial banking, and other disciplines, combined with the available data, to make logical judgments on the financial market situation and develop normative analysis.

5. Result

Based on the analysis of the current status of research and actual development in Part 3 and the advantages and constraints of interbank deposit funds, they are summarized in Table 2.

© 2022 by the authors. Published by Secholian Publication. This article is licensed under a Creative Commons Attribution 4.0 International License (CC BY).

Table 2: Summary of advantages and constraints of interbank deposit funds

Summarize Question	What are the advantages?	What are the limiting factors?
Research Status Summary	Diversified investment of bank funds. Improve the standardization of interbank business. Enhance the level of active management of liabilities by banks. Enhance banks' level of managing liquidity risk. Improve the market-based interest rate formation mechanism. Good trading base, continuous data and responsive to monetary policy. Good benchmarking at the medium to long end.	Tightening regulation and weakening relative advantages of certificates of deposit. The issuance of interbank certificates of deposit is vulnerable to fluctuations in macro policies and liquidity. Interbank certificates of deposit did not break the deposit rate control. The problem of arbitrage in interbank certificates of deposit is serious. The policy environment and tight funding market, small and medium-sized banks are more impacted by the high cost and low issuance rate of certificates of deposit issued by small and medium-sized banks.
The actual development status is summarized	The investment underlying is robust. Low risk. Yield advantage. Good flexibility. High yield. Moderate safety. Low rates.	The fund's net value is prone to retracement under the market value approach valuation. Subject to interest rates, interbank deposit funds are also subject to the possibility of losses. The stability of the source of liabilities obtained by issuing interbank certificates of deposit is vulnerable to market fluctuations

6. Discussion

6.1. Profit model and main advantages of interbank deposit funds

Interbank Depository Receipts Index Fund is a fund that invests in interbank depository receipts, which are book-entry time deposit certificates issued by banking depository financial institutions and legal persons in the national interbank market, and the fund requires 80% of the fund assets to be invested in interbank depository receipts, so interbank depository receipts arbitrage is the primary mode of profitability of interbank depository receipts fund.

6.1.1. Arbitrage model of interbank certificates of deposit.

Each step of the interbank certificates of deposit issuance operation has a spread. Each link can be profitable and divided into three kinds of arbitrage: idle arbitrage, outsourcing arbitrage, and regulatory arbitrage.

First, idle arbitrage: low-cost funds from large commercial banks to purchase interbank certificates of deposit from small and medium-sized banks. According to historical data,

© 2022 by the authors. Published by Secholian Publication. This article is licensed under a Creative Commons Attribution 4.0 International License (CC BY).

the average spread of about 62BP for arbitrage through collateralized access to central bank liquidity to purchase interbank certificates of deposit in the past.

Second is the outsourcing arbitrage: small and medium-sized banks issue interbank certificates of deposit and purchase higher-yielding interbank certificates of deposit and interbank wealth management, nested at various levels. Different maturities and different risk levels of interbank certificates of deposit have different yields, so there is room for small and medium-sized commercial banks to issue short and buy long interbank certificates of deposit and purchase higher risk interbank certificates of deposit for arbitrage. According to the historical data, the average arbitrage spread by issuing short and buying long is 16BP-25BP, the average arbitrage spread by buying higher risk interbank certificates of deposit is 6BP-31BP, and the average arbitrage spread by buying interbank wealth management with the same one-month maturity is 97BP-112BP.

Third, regulatory arbitrage: Small and medium-sized banks entrust the funds raised through interbank wealth management or interbank certificates of deposit to brokerage firms, funds, and private equity firms to manage them on their behalf, increasing leverage, increasing duration, and reducing credit to increase profits at the expense of liquidity and credit. At the same time, the issuance of interbank certificates of deposit is not included in the interbank liabilities, resulting in a high net stable funding ratio (NSFR) and a low "interbank liabilities/total liabilities", which bypasses the regulatory restrictions on risk indicators and is invested in real estate and the two high and one surplus sectors through outsourcing or off-balance sheet.

6.1.2. Interbank Depository Receipt Fund Features.

First, the investment underlying is robust: no less than 80% of the investment is in the sample securities of the CSI Interbank Depository Receipts AAA Index. As the sample securities of CSI Interbank Depository Receipts AAA Index consist of interbank depository receipts listed in the interbank market with a main rating of AAA, issue term of 1 year or less, and listing time of 7 days or more, in terms of the current trend of CSI Interbank Depository Receipts AAA Index, the trend is smoothly rising, and the volatility is extremely low. As of October 8, 2021, the annualized volatility (daily return) is only 0.27%. On a monthly level, it has not generated any monthly-level retracements except for June 2020.

Second, the risk is low: the risk rating is R1, the volatility is low and the retracement is minimal. Third, the income advantage: the income exceeds the money fund, and its 7-day annualized return has an advantage over T+0 finance. Fourth, good flexibility: after holding for more than 7 days (or 30 days), you can redeem at any time; buy before 3 pm on weekdays, you can enjoy the benefits the next day, no need to wait for the liquidation date like short-term closed finance.

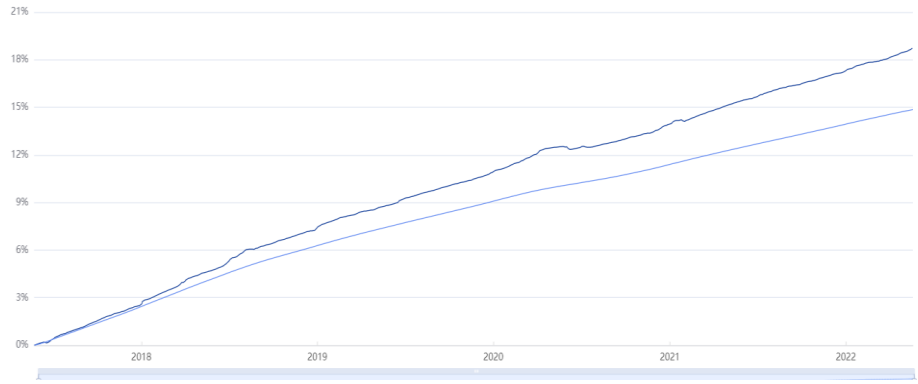
6.1.3. Main advantages of interbank deposit funds over short term debt funds and money funds.

The first is a higher return. Comparing the interbank certificate of deposit index (dark blue curve) with the money fund index (light blue curve) can be found (the data source is CSI Index Company). The return of the certificate of deposit index from 2017 to now is still 3.4% higher than the cumulative return of the money fund index. The depository

© 2022 by the authors. Published by Secholian Publication. This article is licensed under a Creative Commons Attribution 4.0 International License (CC BY).

receipts index is 3.5% annualized for the last five years (Figure 2). The money fund index is 2.82% annualized for the last five years, which means that the depository receipts index has an additional 0.68% return per year compared to the money fund. In the short term, as of May 24, 2022, the CSI Depository Receipts Index has an annualized return of 2.95% for the last year, while the monetary fund has an annualized return of 2.18% for the last year. So whether from the 5-year long-term annualized return or the short-term annualized return of nearly a year, interbank certificates of deposit compared to money funds is an inevitable return on the advantage.

Figure 2: CSI Interbank Depository Receipts AAA Index vs. Money Fund Index in the past five years



The second is moderate security. The risk-return characteristics of the interbank depository index fund are between those of a money fund and a short bond fund. In terms of the percentage of interbank deposits in the asset allocation, more than 80% of the interbank deposit fund's allocation is allocated to interbank deposits. In comparison, the size of interbank deposits in a currency fund usually accounts for 30% of the net worth. In addition, the money fund is also allocated to lower-risk bonds, so the safety of the two is similar to the position allocation alone.

From the viewpoint of the principal investment underlying issuer, the investors of interbank certificates of deposit can only be professional financial institutions, so more professional. Interbank certificates of deposit are certificates of deposits between banks, so they are less credit risk than short-term debt funds. The probability of bank deposits going wrong during market turmoil is lower than the risk of credit bonds issued by companies. Because banks are also subject to the risk of failure, the performance benchmark for the interbank certificate of deposit fund is the CSI Interbank Certificate of Deposit AAA Index (931059).

Thirdly, the rates are relatively low. The Interbank Depository Fund does not charge subscription or redemption fees but only a 0.2% management fee, a 0.05% custodian fee, and a 0.2% sales service fee. These fees are deducted from the daily earnings, and the fund's daily NAV shows the value after deducting the charges. In terms of customer experience, compared to money funds and short bond funds that charge subscription fees on the front end, the net value of the interbank certificates of deposit is more likely to be greater than the principal after purchase, so the customer experience is better.

© 2022 by the authors. Published by Secholian Publication. This article is licensed under a Creative Commons Attribution 4.0 International License (CC BY).

6.2. The main constraints faced by interbank certificates of deposit and countermeasures

6.2.1. The main constraints faced by interbank certificates of deposit.

First, subject to interest rates, interbank funds are also subject to the possibility of losses. Although the probability of interbank certificates of deposit stepping on a mine is extremely low, he belongs to a class of bond assets. After all, it is the interbank market for trading. As long as the transaction must have price fluctuations, such as interest rates rise, he will also fall with the bond, although the fluctuations are not significant. The CSI Interbank Depository Receipts Index will also have sporadic small adverse movements in the last five years. Moreover, regardless of how the fund returns on the day, the fund's management fee, custody fee, and sales fee are still normal accrual. In the interbank depository index, the fund net value is more likely to appear negative.

Second, the fund's net worth is prone to retracement under the market value approach valuation. The valuation method of the interbank certificate of deposit fund is the market value method. Then when the market is tight, the depository receipt interest rate rallies. The depository receipt index objectively reflects the change in the price of depository receipts and will fall along with the price. Therefore, as the interest rate rises, the depository receipt index fund returns will become more common to retreat. However, the vast majority of money funds, due to the amortized cost method of valuation, generally have daily returns, but only in the form of earnings presentation seems to be safer. However, its underlying assets are also bearing volatility. In the same phase of rising interest rates, money fund returns will rise, and there is more of a positive relationship between money funds and market interest rates.

Third, the stability of the source of liabilities obtained by issuing interbank certificates of deposit is vulnerable to market fluctuations. Since interbank certificates of deposit have not been explicitly included in the regulation of interbank liabilities dependency, some commercial banks rely more on interbank certificates of deposit. There is the phenomenon of using interbank certificates of deposit to expand their balance sheets. In essence, interbank certificates of deposit belong to interbank liabilities, which have certain homogeneity with other interbank liabilities such as interbank lending, bond repo, and interbank deposits. Unlike general deposits, interbank liabilities are wholesale financing instruments, often with large individual amounts and a higher concentration of counterparties than general deposits. Generally, general deposits are more stable than interbank deposits and are unlikely to experience significant volatility unless there is an extreme event such as a run. This is not the case for interbank liabilities. When the financial market is volatile, the sources of interbank liabilities may contract sharply, and the pressure to renew at maturity increases steeply, and commercial banks that rely excessively on interbank liabilities will face higher liquidity risk at this time.

6.2.2. Countermeasures for constraints of interbank certificates of deposit.

First, to enrich the product range of interbank depository funds. As of May 24, 2022, there are only 17 interbank depository funds in the Chinese market (see Figure 1 for details), 16 of which invest no less than 80% of their assets in sample securities with the CSI Interbank Depository AAA Index, and only Boshiwa Monthly Interbank Depository 30-Day Holding Period Hybrid Securities Investment Fund (015824) is an actively managed depository product. The product range is relatively small, and 80% of the fund

© 2022 by the authors. Published by Secholian Publication. This article is licensed under a Creative Commons Attribution 4.0 International License (CC BY).

assets track the CSI interbank depository index. The author suggests that the product range of interbank deposit fund can be enriched, the proportion of investment in sample securities of CSI Interbank Depository Receipts AAA Index can be reduced, and the fund income can be thickened through the diversified allocation of other assets to avoid the net loss of interbank deposit fund when the interest rate rises, and to achieve the effect of positive income every day, to improve the customer experience. Multi-level risk appetite needs to be matched by multi-level fund products, which can better accommodate investors' needs and help enhance the stability and activity of the financial market.

Second, strengthen investor education. Since money funds are still essentially "rigid" and do not require daily market surveillance, the fund's net value is positive every day. However, internationally, money funds have experienced significant losses. The interbank depository index fund can achieve daily market surveillance. Its risk level is slightly higher than the money fund. However, for investors, its net value fluctuations fully reveal its real intrinsic risk, in line with the general direction of the reform of the net value of capital management products, in line with the current regulatory policy guidance, the future development prospects are good. However, because it is an emerging product, investor education still needs to be strengthened to make investors correctly understand the fluctuation of fund net value to promote the sales of interbank depositary funds and make China's public fund market flourish.

Third, issuers should take the initiative to count interbank certificates of deposit into the interbank liability dependency for uniform management. In order to avoid the liquidity risk caused by over-reliance on interbank certificates of deposit financing, commercial banks should take the initiative to include interbank certificates of deposit in the interbank liabilities dependency for unified management. Although the regulator has not explicitly included the interbank certificates of deposit, a few days ago, the regulator proposed to commercial banks to conduct self-examination, if the interbank certificates of deposit are included in the interbank financing fund balance, whether it exceeds one-third of the total bank liabilities. This shows that the regulator has paid attention to the problem. Furthermore, interbank certificates of deposit are an interbank liability, and it is reasonable to include them in the assessment. A part of commercial banks that have developed interbank liabilities too fast should consciously take the initiative to adjust the proportion of interbank liabilities to total liabilities to avoid over-reliance on interbank liabilities and not put liquidity management in a passive situation.

7. Conclusion

With the development of China's economy, the development of interbank certificates of deposit will be gradually standardized. The interbank certificates of the deposit fund market will gradually become a crucial part of the money market instruments in China's sustainable emerging market because of their sound investment underlying, low risk, yield advantages, good flexibility, high yield, moderate security, and low fees, and other advantages. Although there are still drawbacks of interbank deposit funds, we can gradually improve this "negative list" by enriching the product types of interbank deposit funds, strengthening investor education, and issuers should take the initiative to count interbank deposits as interbank liability dependency for unified management.

In addition, while affirming the rapid development of interbank deposit funds and their extraordinary advantages, we should also see that there are indeed some market-

© 2022 by the authors. Published by Secholian Publication. This article is licensed under a Creative Commons Attribution 4.0 International License (CC BY).

disturbing behaviors in the current market. For example, the mutual investment between some commercial banks and money funds causes the idle of funds, or money funds subscribe to interbank certificates of deposit issued by banks. In contrast, banks subscribe to money funds, or some commercial banks hold certificates of deposit between each other, disrupting market interest rates and other behaviors. However, these behaviors are not the market's mainstream but only a very isolated phenomenon. At the same time, the regulatory authorities have also paid attention to these unreasonable phenomena, in-depth regulatory arbitrage, idle arbitrage, associated arbitrage, and other unique governance, clearly put forward to check whether there are interbank certificates of deposit idle. As the regulatory gap is gradually filled, the short-selling of certificates of deposit will be effectively curbed, and the development of interbank certificates of deposit will become more and more standardized and healthy and will return to the essence of interbank investment and financing instruments.

Funding

This study received no funding.

Conflict of Interests

The authors reported no conflicts of interest for this work and declare that there is no potential conflict of interest with respect to the research, authorship, or publication of this article.

References

Allen, F., Hryckiewicz, A., Kowalewski, O., & Tümer-Alkan, G. (2014). Transmission of financial shocks in loan and deposit markets: Role of interbank borrowing and market monitoring. *Journal of Financial Stability, 15*, 112-126.

Chen, Guojin, Jiang, Xiaoyu, Liu, Yanzhen & Zhao, Xiangqin. (2021). Asset transparency, regulatory arbitrage and bank systemic risk. *Financial Studies (03)*, 18-37.

Chen, H., Chen, Q., & Gerlach, S. (2013). *The implementation of monetary policy in China: The interbank market and bank lending. In Global banking, financial markets and crises*. Emerald Group Publishing Limited.

Coen, P. (2020). *The industrial organisation of financial intermediation* (Doctoral dissertation. The London School of Economics and Political Science (LSE)).

De Lisa, R., Zedda, S., Vallascas, F., Campolongo, F., & Marchesi, M. (2011). Modelling deposit insurance scheme losses in a Basel 2 framework. *Journal of Financial Services Research, 40*(3), 123-141.

Ge Yan. (2014). Inter-bank certificates of deposit and inter-bank business development. *Beijing Financial Review (04)*,145-153.

Guo, Hongyu & Li, Ye. (2021). The choice of long-end benchmark interest rates in the money market - A discussion on the feasibility of interbank deposit rates. *Times Business & Economics,* 9, 41-47. doi:10.19463/j.cnki.sdjm.2021.09.009.

Hannam, M. (2013*). Money Market Funds, Bank Runs and the First Mover Advantage*. Bank Runs and the First Mover Advantage (January 4, 2013).

Jiang Chao, Jiang Peishan & Sun Liping. (2020). Development history, difficulties and suggestions of interbank certificate of Deposit market. *China Money Market*, 11, 9-13.

© 2022 by the authors. Published by Secholian Publication. This article is licensed under a Creative Commons Attribution 4.0 International License (CC BY).

Jiang, B., Tzavellas, H., & Yang, X. (2022). Deposit Competition, Interbank Market, and Bank Profit. *Journal of Risk and Financial Management, 15*(5), 194. https://doi.org/10.3390/jrfm15050194

Liu Shida, Zhang Ming & Wang Zhe. (2017). The interbank deposit market with Chinese characteristics: international experience, characteristic facts and potential risks. *Financial Market Research*, 11, 101-116.

Long Yi & Zhang Hu. (2017). Interbank certificates of deposit: development background, operation mode and future outlook. *Financial Vertical, 6*, 10-19+52.

Macedo, D., & Troster, V. (2021). Liquidity shocks and interbank market failures: the role of deposit flights, non-performing loans, and competition. *Journal of Economic Interaction and Coordination, 16*(4), 705-746.

Sümer, T. P., & Özyıldırım, S. (2019). Do banking groups shape the network structure? Evidence from Turkish interbank market. *International Review of Financial Analysis*, 66, 101387.

Yao, H.W. & Hui, A.L. (2017). Development dynamics, potential risks and reform path of interbank depository receipts in the banking industry. *Financial Regulation Research, 12*, 68-80. doi:10.13490/j.cnki.frr.2017.12.005.

Summer. (2022, May 30). About the interbank certificate of deposit fund, please don't listen to the legend – HCItInfo. Retrieved August 11, 2022, from About the interbank certificate of deposit fund, please don't listen to the legend – *HCItInfo* website: https://www.hcitinfo.com/oe0nhfweq0u7.html

© 2022 by the authors. Published by Secholian Publication. This article is licensed under a Creative Commons Attribution 4.0 International License (CC BY).