

The Development and Challenges of Formosa Bond Market

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ABSTRACT

Taiwan has more than RMB 300 billion RMB deposits and helps the Formosa bond market becomes one of the highlights in Asia. A series of regulatory and infrastructure reforms have paved the way to build itself an offshore RMB hub. Nevertheless, issues such as low liquidity and international participation in this market are in need of further improvement. The purpose of this paper intends to analyze the development of the Formosa bond market and possible hindrances therein. Regulations governing this market and recent revisions thereof are also discussed. This paper explores the challenges of the Formosa bond market and possible suggestions are elaborated as well. This paper concludes the Formosa bond market will continually have solid growth. The growth of this market may alleviate pressure on Taiwan's banking system from an asset-liability mismatch in RMB. Finally, this paper suggests a vigorous Formosa bond market will help to retain RMB-related financial services in Taiwan and will help Taiwan to reach its goal of becoming a major offshore RMB hub.

Keywords: RMB deposits, offshore RMB hub, Formosa Bond, professional investor, retail investor, liquidity

1. INTRODUCTION

Renminbi (RMB)-dominated bonds have been booming in Asia capital markets. In October, 2014, eleven countries or areas have issued offshore RMB bonds with total amount of 142.6 billion of RMB outside of Hong Kong. Taiwan has a rapidly increasing offshore RMB deposits, more than RMB 300 billion, ranking next to Hong Kong. The enormous RMB liquidity in Taiwan attracts international companies and thereby its RMB bond (Formosa bond) market becomes one of the highlights in Asia. A well-established Formosa bond market is critical important for Taiwan to pave the way to an offshore RMB hub as well as to strengthen international competitiveness of its financial market. A series of regulatory changes have been launched in this bond market to attract more issuers and investors to participate therein.

Nevertheless, issues such as low liquidity and international participation in this market are in need of further elaboration. The purpose of this paper intends to analyze the development and challenges of the Formosa bond market. Regulations governing this market as well as recent revisions therein will be also discussed. Finally, this paper will also explore the challenges of the Formosa bond market and possible suggestions will be elaborated as well.

2. TAIWAN AS A NEW RMB BOND MARKET

2.1 Taiwan's development as an important offshore RMB hub

On August 31, 2012, Taiwan and China signed a Memorandum on Cross-strait Currency Clearing Cooperation (MOU). This MOU established the basic principles and cooperative framework of a currency clearing mechanism for the two sides of the Taiwan Strait, namely Taiwan and China. This is a major milestone for financial cooperation between Taiwan and China. After the MOU was inked, the Bank of China Taipei Branch was designated as the RMB clearing bank in Taiwan. In January 2013, Taiwan's Central Bank revised "Regulations Governing Foreign Exchange Business of Banking Enterprises" allowing Taiwan's authorized foreign exchange banks to conduct RMB business. Soon after this amendment, on February 6, 2013, the DBUs began to offer RMB business. This of course marks a new chapter in Taiwan's development as an important offshore RMB hub.

The offshore RMB business in Taiwan has made great strides quickly since its launch. Several observations, as followings, can be evidenced this development.

(1) RMB business deregulation

RMB business in Taiwan has been gradually deregulated. Financial institutions are allowed to offer a variety of RMB services and products, including deposits and loans, remittances, cross-border trade settlements, currency exchange, derivatives, insurance, and mutual funds. The Taiwan authorities will keep pace with the development of Taiwan's RMB business and conduct periodic reviews on relevant laws and make timely and appropriate adjustments. This is part of

Taiwan's efforts in strengthening its standing as an important offshore RMB market.

(2) RMB liquidity pool

RMB deposits are the second largest among foreign currency deposits in Taiwan, next to those in the US dollar. RMB deposits of Taiwan banking enterprises reached a record high of RMB 302.2 billion at the end of 2014. Taiwan has accumulated second largest offshore RMB liquidity pool, next to Hong Kong, in two years.

(3) RMB trading

RMB trading against the US dollar reached 102.8 billion US dollars and accounted for 15.4% of all third-currency trading in Taiwan in December 2014. This figure was equal to the yen's 15.4% and trumped the euro's 12.4%. The market share of RMB trading in Taiwan's foreign exchange market is significant.

(4) RMB funds uses

The sources and uses of RMB funds have also been expanded, allowing financial institutions in Taiwan to catch global RMB business opportunities. The RMB funds of Taiwan come not only from RMB deposits by individuals and corporate but also from financial institutions outside of Taiwan, mainly Hong Kong. It also shows RMB business in these two major hubs has been closely linked. In terms of fund uses, Taiwan's financial institutions conduct RMB transactions such as lending and deposits not only from Hong Kong, but also from many countries across the world. For instance, China, Luxemburg, Singapore, Germany, Japan, and South Korea have RMB business cooperation with Taiwan. Taiwan is now the place to meet the needs of many markets for RMB funding.

Based on the above-mentioned observations, the offshore RMB business in Taiwan has high growth potentiality and Taiwan's development into an offshore RMB market is being closely watched with a great deal of interest by international financial institutions and investors.

2.2 The Formosa bond market is vital to Taiwan's RMB hub

China is Taiwan's the largest export destination and the second largest import source. The bilateral trade between Taiwan and China totals some US\$120 billion each year. Remittances in both directions also amount to more than US\$520 billion in 2012 and US\$560 billion in 2013. In addition, the annual number of China tourists visited Taiwan has been more than 2.5 million since Taiwan open individual visit scheme for China tourists in 2012. Moreover, many Taiwanese firms invest in China and conduct business across the two

sides. In response to these needs, financial institutions can tap tremendous RMB business opportunities by providing them with better and more RMB-related services, such as trade financing and settlements, assets and funds management, etc. This RMB business should help Taiwan build up a larger pool of RMB liquidity.

Although Taiwan has a great quantity of RMB deposits, the capital controls by China is still not eased and the backflow channels for Taiwan's RMB funds are limited and problematic. Currently, the Chinese authorities allows only one channel for onshore RMB lending provided by Taiwanese RMB funds with lending contracts thereof limited to between the Taiwanese parent companies and their subsidiaries in Kunshan, China. Another remitting channel for offshore RMB deposits is RQFII (RMB qualified foreign institutional investor) scheme. According to existing regulations, offshore financial institutions may use their RMB holdings to invest in the Chinese interbank bond market. The China Securities Regulatory Commission agreed to grant RQFII with the quota of 100 billion RMB for Taiwanese financial institutions in 2013. However, RQFII mechanism is also idle due to Taiwan's suspension of ratification in service trade agreement between Taiwan and China. Thus, talks with the Chinese authorities to have broader scope and greater ease channels for RMB funds back to the China are not in progress.

Since the limitations Taiwan's RMB flowing-back channels are not eased, developing a RMB bond market becomes more vital to the use and backflow of Taiwan's RMB proceeds. A well-developed Formosa bond market will help to retain RMB-related financial services in Taiwan. Furthermore, RMB funds obtained from bond issuance may be used for onshore RMB investment which will further increase RMB's backflow to China. To attract domestic and international companies, including China companies, to issue RMB bonds in Taiwan becomes essential to an offshore RMB hub. Therefore, the Financial Supervisory Commission (FSC), Taiwan's securities regulating authority, opened to issue Formosa bond in Taiwan's international bond market in November, 2012.

2.3 Overview of the Formosa bond market

Formosa bond is one of the foreign currency-denominated bonds issued in Taiwan's onshore market. Formosa bond differs from other offshore RMB-denominated bonds, such as Hong Kong's Dim Sum bond. Formosa bond issuance is subject to Taiwan's regulatory requirements and requires approval by the Taiwan authorities. The first Formosa bond was issued by Chinatrust Commercial Bank, a Taiwanese bank, in March 2013. Two Taiwanese companies and one bank, Far Eastern New Century Corporation, TECO and Chang Hwa Bank, also issued Formosa bonds separately in May, 2013. Then, Deutsche Bank, the first

foreign bank, issued two Formosa bonds, with a combined value of RMB 1.1 billion. These six Formosa bonds are provided for general investors and their yields are ranging from 2.45% to 3% with maturities for 3 to 10 years.

To attract more issuers and investors, the Taiwan authorities gradually eased its restrictions and allowed China-based banks to issue Formosa bonds with a quota of RMB 10 billion in November 2013. Bank of China Construction Hong Kong branch is the first eligible China-based bank to issue Formosa bond for RMB 2 billion. Since then, the issuance of China-based banks started to pick up sharply and as such their issues have dominated the Formosa bond market. It is worth of noting that these China-based bank Formosa bonds are all issued by foreign branches of such banks and are mostly by Taipei and Hong Kong branches thereof. Furthermore, the yields of Formosa bonds ranging from 2.45 to 5 % which are comparatively lower than those of other offshore RMB centers.

The scale of the Formosa bond market is relatively smaller than that of Dim Sum bond market. However, the Formosa bond market has been booming in past two years and becoming the highlight in Asian financial market. At the date of January 23, 2015, 45 Formosa bonds have been priced for a total of RMB 31.6 billion since the Formosa bond market started in March, 2013. There are twenty-nine Formosa bonds issued by China-based banks with total value of RMB 23 billion and account for about 72.8% of overall issuance in this market. Taiwan banks and companies are the second largest issuers and accounts for 19% of market shares. The remaining 8.2% are issued by foreign issuers. (Appendix 1 lists Formosa bonds). Therefore, China-based banks are the major issuers of the Formosa bond market.

3. REGULATIONS OF THE FORMOSA BOND MARKET

Formosa bond is regulatory a kind of the foreign currency-dominated bonds issued in Taiwan's onshore market. The GreTai Securities Market (GTSM), Taiwan's OTC, established Taiwan international bond trading system in October, 2005 and launched its first foreign currency-denominated bond onshore in November 2006. Formosa bond was excluded in Taiwan's onshore international bond market until Taiwan revised "GTSM Rules Governing Management of Foreign Currency Denominated International Bonds" (the Rules) in November 9, 2012 to include RMB in Taiwan's foreign bond currency. The issuance, trading, clearing, and reporting of Formosa bond are therefore legally governed by the Rules. Since the Formosa bond market started in March 2013, a series of recent regulatory and infrastructure changes has led to easier issuance and improved foreign access. A number of changes have been also made to support investment by

domestic and international investors. These amendments and revisions are discussed below.

3.1 Eligible issuers

The eligible issuers of Formosa bond include domestic issuers and foreign issuers. Foreign issuers shall meet the conditions set by the FSC, and they include international organizations, foreign governments, foreign enterprises, and branches of foreign financial institution, according to article 22 of the "Securities and Exchange Act" and article 3 of the "Regulations Governing the Offering and Issuance of Securities by Foreign Issuers". On November 27, 2013, the FSC published Circular No. 1020047887 and three types of China entities became eligible to issue Formosa bonds but only on the professional board. These eligible China entities are:

- (1) China-based policy banks, state-owned commercial banks, joint-stock commercial banks, and their overseas branches and subsidiaries,
- (2) China subsidiaries of Taiwan financial institutions, and
- (3) China subsidiaries of Taiwan-listed companies.

To put it differently, all except China non-financial companies which are not affiliated with Taiwan companies are therefore eligible to issue Formosa bonds. China Construction Bank Corporation Hong Kong Branch was the first China-based bank launched Formosa bond in Taiwan on December 10, 2013 with a value of RMB 2 billion. The maximum amount of Formosa bonds that can be issued by China-based banks was capped at RMB 10 billion at the beginning but this quota will be increased gradually.

3.2 Simplified procedure

Application for Formosa bond issuance has been greatly simplified. The Formosa bond market was structured into professional board and general board on August 27, 2013 according to GTSM published Letter No. 1020021569. At the same date, the FSC published several Circulars to simplify issuance procedures for Formosa bonds, particularly for those intended issue for the professional board. For instance, the FSC Circular No. 10200293696 eliminates the requirements of pre-consent, reporting, and disclosure of financial statement for Formosa bonds issued on the professional board. Pre-approval from the central bank is also no longer required if the funds raised by Formosa bonds are kept in RMB or completely exchanged into New Taiwan dollars (NTD) by means of a swap. Communication about the issuance plan is, however, still needed. In addition, the FSC Circular No. 10200293699 eliminates credit rating requirement for Formosa bond on issued on the professional board. Designated price quoting security dealers for Formosa bond is neither required. Nevertheless, issues intended

for the general board which allows both retail and institutional investors to participate are still in need of more stringent approval. For instance, credit rating for Formosa bond issued on the general board is not required only if that conform to one of the conditions below:

- (1) the bond has been guaranteed by a financial institution within Taiwan,
- (2) the issuer has provided an issuer credit rating report with a credit rating of BBB or higher, or
- (3) sale of the bond is restricted to qualified institutional investors.

3.3 Eligible investors

In the Formosa bond market, both domestic investors and foreign investors can participate in the primary and secondary markets. Foreign investors are no longer required to obtain foreign institutional investor (FINI) status for Formosa bond investments. In April 2014, a link has been established between Euroclear and Taiwan Depository & Clearing Corporation (TDCC), Taiwan's domestic settlement system, which allows foreign investors to settle Formosa bonds via TDCC and vice versa. Thus, both FINI and non-FINI foreign investors can directly settle Formosa bonds via their Euroclear accounts, for both primary and secondary participation. Generally, there is no restriction for investments in Formosa bonds on general board. With regard to professional board, investors, both domestic and international investors, thereof shall be qualified for "professional institutional investor" status, according to the FSC Circular No. 10200293696. This Circular revises Article 19-7 of the "Regulations Governing Securities Firms" to mandates "professional institutional investor" to include :

- (1) domestic and foreign banks, insurance companies, bills finance companies, securities firms,
- (2) fund management companies, government investment institutions, government funds, pension funds, mutual funds, unit trusts, securities investment trust companies, securities investment consulting companies, trust enterprises, futures commission merchants, futures service enterprises, and
- (3) other institutions approved by the FSC.

On June 24, 2014, the FSC further published Circular No 1030014107 and amended article 2-1 of the Rules which regulates investor status of professional board. This revision relaxed qualifications of individuals and business entities and expanded the scope of investors for professional board from "professional institutional investor" to "professional investor" status. According to the amendment, "professional investor" refers to an investor that is:

- (1) a professional institutional investor, as mentioned above,
- (2) a company or fund whose total assets exceed of NTD 50 million, or
- (3) an individual who:
 - (a) has more than NTD 30 million or total investment assets in excess of NTD 15 million, along with provision of a written statement declaring thereof,
 - (b) is a natural person has adequate professional knowledge or trading experience in financial products, and
 - (c) is a natural person fully understands the risks of trading in Formosa bond and agree to sign for as trades as a professional investor.

Thus, this regulatory change is likely to increase both domestic and international participation in the Formosa bond market.

3.4 Taxes

Currently, both domestic and foreign investors do not have to pay capital gain tax for securities and securities transactions tax for their investments in Formosa bonds. Other taxes for Formosa bond vary depending on the nationality of issuer and investor. Domestic investors are subject to 10% withholding tax and 17% corporate income tax on their investments in Formosa bonds issued by either Taiwan or international issuers. The 10% withholding tax paid by domestic investors on Formosa bond coupon returns will be deducted from corporate income tax thereof. International investors are subject to 15% withholding tax on their investment in Formosa bonds issued by Taiwan issuers, but not on those issued by international issuers. Therefore, international investors will have zero tax benefit than domestic investors if they invest on Formosa bonds issued by international issuers.

4. CHALLENGES OF THE FORMOSA BOND MARKET

A series of recent regulatory and infrastructure reforms in the Formosa bond market has led to easier issuance and improved international access. However, challenges still exist in this market needed for further improvement in order to enhance international competitiveness thereof. These challenges are explored below.

4.1 Low base of international participations in the Formosa bond market

Undeniably recent efforts of Taiwan authorities on the Formosa bond market will improve both supply of and demand for Formosa bonds. Participation by international investors is likely to increase from the currently low base but the growth still will be limited. From international investors prospective, the recent reforms have only brought their access to Formosa

bonds on par with that to Dim Sum bonds, but do not offer any additional advantages. For tax concern, it can be expected that international participation in the Formosa bond market to mostly be in bonds issued by international issuers because of 0% tax. On the other hand, international investors will not invest in bonds issued by Taiwan issuers which are subject to 15% withholding tax. Therefore, most of their investments will likely remain in other offshore RMB market, particularly in the Dim Sum bond market. This is because the Dim Sum bond market is much larger than the Formosa bond market, and the liquidity thereof is greater. To increase international participation in the Formosa bond market, the Taiwan authorities need to consider to reduce tax rate as well as to improve market liquidity.

4.2 Limitations on China entities access in the Formosa bond market

Even though the Taiwan authorities has released restrictions for China entities to issue Formosa bonds the cope thereof is still limited. Only China-based banks are allowed to issue Formosa bonds with a quota control. All non-financial China companies, except entities affiliated with Taiwan companies, are still not eligible to issue Formosa bonds. In spite of these restrictions, the China-based banks remain the largest issuer of Formosa bonds and show continuous demand to issue Formosa bonds. Taiwan authorities has gradually increased available issuance quota from RMB 10 billion to 25 billion in 2014 for China-based banks. Nevertheless the Taiwan authorities has not yet lift the prohibition on non-financial China entities to issue Formosa bonds. The major concern of Taiwan authorities to restraint non-financial China companies to issue Formosa bonds is for investor protection. Generally the financial statements of China entities are not transparent. Investors, especially for retail investors, could face higher risks when they invest in Formosa bonds issued by these China entities. This policy could, nonetheless, be to place restrictions on the growth of the Formosa bond market. To enlarge the market participation of the Formosa bond market, Taiwan authorities are thus in need of considering unwinding the cap of issuance and qualification controls for China entities therein.

4.3 Limitations of the scope of investors

On the supply side, China-based banks are the major issuers of the Formosa bond market, but domestic investors are key investors on the demand side thereof. This is because domestic investors can benefit from their familiarity with local issuers and local rules. Statistics in 2014 showed domestic banking sector was the major investor in the primary market, holding 36.41% of shares, followed by the insurance sector and brokerage houses, which accounted for 34.88% and 22.45% respectively, according to GTSM. Insurance

companies are likely to be new active buyers of Formosa bonds because of change of Formosa bond status as domestic assets by the FSC. In May 2014, the FSC amended the Insurance Act to ease restrictions of Taiwan life insurance companies to invest Formosa bonds. This revision reclassifies Formosa bond investments as domestic rather than foreign holdings for Taiwan life insurance companies. Formosa bond investments are now excluded from the 45% foreign investment cap set for Taiwanese life insurance companies.

This easing of restrictions had two aims. The first goal of this revision is to allow life insurance companies to increase their investments in higher-yielding foreign-currency bonds. And the other purpose is to promote growth of the Formosa bond market by making it attractive for international issuers to list in Taiwan. Due to low yields of NTD-denominated instruments, Taiwan life insurance companies traditionally have critical portions of investments in high yields foreign currency-denominated instruments in their foreign positions. According to statistics from the Taiwan Insurance Institute, total foreign investment quota of Taiwan life insurance companies exceeded NTD 6.3 trillion in 2013. Total foreign assets of Taiwan life insurance companies have been close to the 43.58% foreign investment limit thereof. The exclusion of Formosa bond from foreign investment positions will be liable to boost the demand of Formosa bonds from Taiwan life insurance companies. It is expected that Taiwan life insurance companies prefer Formosa bonds over other RMB-dominated bonds, such as Dim Sum bonds. Yet, these insurance companies are also likely to retain material investment positions in the Dim Sum bond market because most Formosa bonds are short-dated and do not meet their investment requirements.

It should be noted that only qualified professional investors have no restrictions to gain access to Formosa bonds. Retail investors are restricted to invest in bonds listed in professional board. They are only allowed to tap in general board which has only six products with relative low yields comparing to those in professional board. Challenges exist in general board because banks, from time to time, provide preferable interest rate and short-term maturity for RMB deposits which even higher than that of Formosa bonds listed in general board. As demand from retail investors for the higher-return of RMB financial products is on the rise, the FSC needs to consider permitting domestic non-professional investors, or individual investors, to invest in Formosa bonds of professional board. This deregulation provides another venue for issuers to find new investors. Besides, this regulatory reform would allow retail investors to put in funds into more Formosa bonds other than RMB deposits as well as to increase market scale.

4.4 Low yields and poor liquidity

Low yields and poor liquidity are the major challenges of the Formosa bond market. Historically, the yields of Formosa bonds have been substantially lower than those of Dim Sum bonds. For instance, Deutsche Bank, the first foreign issuer, launched a 3 years tenor Formosa bond with a yield as low as 2.45 %. Recently, the yield of new bond has been increased to 5 %, issued by Golden Developments Holdings Limited in June 2014. Yet comparing to 2.7 to 10.3% yields in Dim Sum bond market, Hong Kong as well as to 2.75 to 7.8% yields in Lion City bond market, Singapore, the yields of Formosa bonds are substantially lower and relatively unattractive.

Apart from the low yields, poor liquidity of Formosa bonds will be a problem for investors. Even if the improvement on recent regulatory easing, liquidity of Formosa bond is still poor comparing to that of Dim Sum bonds. Because of limited supply, domestic institutional investors, major buyers, are likely to hold their Formosa bond investments to maturity. In supply side, there were around RMB 200 billion of Dim Sum bonds have been issued in 2014 and about RMB 33 billion of Lion City bonds have been issued in Singapore at the same period. In comparison, Formosa bond issued and outstanding currently stands at only RMB 31.6 billion. Therefore, the market scale of Formosa bond is almost equal to Lion City bond but far smaller than that of Dim Sum bond.

To solve low yields and poor liquidity, the Taiwan authorities should encourage Formosa bond issuers to diversify their products by providing investors with a wide range of maturities and to meet demand from different investors. Moreover, the Taiwan authorities has to further deregulate Formosa market and remove restrictions on issuers, such as China entities, and investors, such as retail investors, therein.

5. CONCLUSION

Without any doubts, the abundance of RMB liquidity in Taiwan attracts international companies which would prefer to issue in larger size to lower operational costs. However, the current policy framework to open up Formosa bond market remains in the development and experimentation stages. A series of regulatory reforms by the Taiwan authorities have paved the way for easier issuance and broader international participation in the Formosa bond market. Further deregulation to allow easier access for China entities and retail investors in the market would be likely to enhance liquidity thereof, enable greater asset allocation to Formosa bonds, and invigorate this market.

It can be expected that Formosa bond market will continually have solid growth in supply and demand respectively. Owing to rising demand in the Formosa

bond market, it is expected that the FSC is likely to lift the ceiling on the value of Formosa bonds issued by China-based banks to RMB 45 billion in 2015. This quota-lifting would mean an 80% expansion from the current level of RMB 25 billion. An expansion of the total issuance of Formosa bonds is expected to RMB 60 billion in 2015, a nearly 100% growth from 2014

Moreover, growth of the Formosa bond market may further alleviate pressure on Taiwan's banking system from an asset-liability mismatch in RMB. As restrictions on RMB flowing-back channels are currently not eased, the majority of Taiwan's RMB deposits are channeled back to Bank of China Taipei branch via the local interbank market, a development that the Taiwan authorities is unwilling to see. A vigorous Formosa bond market is likely to improve this situation and will help to retain RMB-related financial services in Taiwan. It is only when both domestic and international issuers and investors find it is easy to tap the Formosa bond market will help Taiwan to reach its goal of maintaining and becoming a major offshore RMB center in the longer term.

REFERENCES

- [1] ANZ Greater China Economics, Trading with China: The rise of offshore Renminbi business, Mar. 2011.
- [2] Central Bank of the Taiwan, Monthly overview of RMB business conducted by banks, Press Releases, Jan. 15, 2015.
- [3] Central Bank of the Taiwan, Taipei foreign exchange market, Press Releases, Jan. 22, 2015.
- [4] Deutsche Bank, At the centre of RMB internationalization - A brief guide to offshore RMB, Mar. 2014.
- [5] Deutsche Bank Market Research, Offshore RMB market monitor, Offshore RMB market 2015 outlook, Dec. 15, 2014.
- [6] Executive Yuan, Memorandum on Cross-strait Currency Clearing Cooperation, Aug. 31, 2012.
- [7] Fung, H.G., J. Yau, "The Chinese offshore Renminbi currency and bond markets: The role of Hong Kong", *China and World Economy*, Vol. 20, No. 3, pp.107-122, 2012.
- [8] Fung, H.G., D. Tzau, J. Yau, "The Chinese offshore Renminbi denominated bonds: Dim Sum Bonds", *Chinese Economy*, Vol. 46 No. 2, pp.6-28, 2013.
- [9] Fung, H.G., J. Yau, "The Dim Sum Bonds market and its role in the internationalization of the Renminbi," *European Financial Review*, February-March, pp.64-67, 2013.
- [10] Fung, H.G., Glenn Ko, J. Yau, *Dim Sum Bonds: The Offshore Renminbi (RMB)-denominated bonds*, Hoboken, NJ: John Wiley & Sons, 2014.
- [11] Hui, C.H., "China agrees to raise RQFII quota in preparation for Taiwan link up", *The Sunday Times*, Jan. 29, 2013.
- [12] Lin, C.F., The analysis of RMB business

regulations of Taiwan banking enterprises at post Cross-strait currency clearing era, *Cross-strait Banking and Finance*, Vol. 2, No. 1, pp.63-82, 2014.

- [13] Liu, B., “RMB offshore bonds: Development, dynamics and outlook,” *HSBC Global Research*, HSBC, Dec. 13, 2010.
- [14] Pei, C.H., Y.F. Yu, “Development and perspective of offshore RMB bond market,” *Chinese Review of Financial Studies*, Vol. 2, 2011.
- [15] Pong, E., J. Perrett, E. Chan, “Preparing for China’s inclusion in global benchmarks”, *The Journal of Index Investing*, Vol. 5, No. 3: pp. 33-45, 2014.
- [16] Sean, C.R., C.C. Hua, P. Ng, R. Yuen, Development of the Renminbi market in Hong Kong SAR: assessing onshore-offshore market integration, IMF Working Paper, WP/13/268, Dec. 2013.
- [17] Shipman, M., “China’s QFII regime: a complete review of the regulatory scheme and compliance risks,” *Journal of Investment Compliance*, Vol. 13 No. 3, pp. 74-83, 2012.
- [18] Standard Chartered Bank, Taiwan – Regulatory change unlikely to affect TGBs, Global Research, Sep. 17, 2014.
- [19] Taiwan Insurance Institute, The statistic of life insurance finance, Acquisitions of investment by life insurance industry (2012-2013).
- [20] Wong, J.Y., *Development of Dim Sum Bonds in Hong Kong’s Offshore RMB Market*. Nomura Research Institute, 2012.
- [21] Yang, C.L., Taiwan offshore RMB market – developments and prospects, Nov.8, 2013.
- [22] Zhihuan E., “Development of Hong Kong’s offshore RMB market and its prospects,” *Economic Review*, July, 2014.

APPENDIX 1: FORMOSA BOND LIST (General Investors)

	Issue date	Issuer	Coupon (%)	Tenor (years)	Amount (RMB million)
1	12-Mar-13	Chinatrust Commercial Bank	2.90%	3	1,000
2	16-May-13	Far Eastern New Century Corporation	2.95%	3	500
3	20-May-13	TECO Electric and Machinery Co. Ltd.	3.00%	3	300
4	29-May-13	Chang Hwa Bank	2.90%	3	1,000
5	21-Jun-13	Deutsche Bank Aktiengesellschaft	2.45%	3	1,000
6	21-Jun-13	Deutsche Bank Aktiengesellschaft	2.65%	5	100

Data source: Taiwan GreTai Securities Market。 (http://www.gretai.org.tw/web/bond/publish/international_bond_search/memo.php?l=en-us)

APPENDIX 1: FORMOSA BOND LIST (Professional Investors only)

	Issue date	Issuer	Coupon (%)	Tenor (years)	Amount (RMB million)
1	10-Dec-13	Bank of Communications Co. Ltd., Hong Kong Branch	3.40%	3	800
2	10-Dec-13	Bank of Communications Co. Ltd., Hong Kong Branch	3.70%	5	400
3	10-Dec-13	Agricultural Bank of China, Hong Kong Branch	3.30%	3	1,250
4	10-Dec-13	Agricultural Bank of China, Hong Kong Branch	3.60%	5	250
5	10-Dec-13	Bank of China Ltd, Hong Kong Branch	3.15%	2	1,000
6	10-Dec-13	Bank of China Ltd, Hong Kong Branch	3.25%	3	1,000
7	10-Dec-13	China Construction Bank Corporation, Hong Kong Branch	3.25%	3	2,000
8	23-Jan-14	Uni-President China Holdings Ltd.	3.60%	3	1,000
9	27-Jan-14	The Export-Import Bank of Korea	4.50%	10	500
10	23-Jun-14	Bank of Communications Co. Ltd., Hong Kong Branch	3.45%	3	1,000
11	23-Jun-14	Bank of Communications Co. Ltd., Hong Kong Branch	3.85%	5	500
12	23-Jun-14	Bank of Communications Co. Ltd., Hong Kong Branch	4.15%	7	500
13	16-Jul-14	Golden Developments Holdings Ltd.	5.00%	3	300
14	06-Aug-14	Agricultural Bank of China, Hong Kong Branch	3.40%	3	1,700
15	06-Aug-14	Agricultural Bank of China, Hong Kong Branch	3.80%	5	300
16	28-Aug-14	Uni-President China Holdings Ltd.	3.50%	3	500
17	28-Aug-14	Uni-President China Holdings Ltd.	3.90%	5	500
18	05-Sep-14	Bank of China Ltd, Taipei Branch	3.25%	2	500
19	05-Sep-14	Bank of China Ltd, Taipei Branch	3.75%	5	1,000
20	05-Sep-14	Bank of China Ltd, Taipei Branch	4.00%	7	500
21	05-Sep-14	China Construction Bank Corporation, Taipei Branch	3.35%	3	800

APPENDIX 1: FORMOSA BOND LIST (Professional Investors only)

	Issue date	Issuer	Coupon (%)	Tenor (years)	Amount (RMB million)
22	05-Sep-14	China Construction Bank Corporation, Taipei Branch	3.75%	5	600
23	05-Sep-14	China Construction Bank Corporation, Taipei Branch	4.00%	7	600
24	23-Sep-14	Industrial and Commercial Bank of China Ltd., Singapore Branch	3.70%	5	700
25	23-Sep-14	Industrial and Commercial Bank of China Ltd., Singapore Branch	3.95%	7	1,300
26	17-Oct-14	Central American Bank for Economic Integration	3.85%	5	500
27	11-Nov-14	KGI Securities	3.50%	2	200
28	18-Nov-14	Yuanta Securities Co.	3.50%	2	360
29	18-Nov-14	Yuanta Securities Co.	3.60%	3	640
30	18-Nov-14	China Construction Bank (Asia)	3.30%	2	700
31	18-Nov-14	China Construction Bank (Asia)	3.75%	5	1,000
32	18-Nov-14	China Construction Bank (Asia)	3.95%	7	1,000
33	18-Nov-14	China Construction Bank (Asia)	4.08%	10	600
34	04-Dec-14	Bank of Communications Co. Ltd., Taipei Branch	3.30%	2	200
35	04-Dec-14	Bank of Communications Co. Ltd., Taipei Branch	3.75%	5	900
36	04-Dec-14	Bank of Communications Co. Ltd., Taipei Branch	3.90%	7	700
37	04-Dec-14	Bank of Communications Co. Ltd., Taipei Branch	4.00%	10	200
38	09-Dec-14	China Merchants Bank, Hong Kong Branch	4.05%	5	1,000
39	23-Jan-15	Air Liquid Finance	3.97%	7	500

Data source: Taiwan GreTai Securities Market。 (http://www.gretai.org.tw/web/bond/publish/international_bond_search/memo.php?l=en-us)