The Impact of Interest Rate Liberalization on Commercial Banks

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Make the risk of commercial Banks are facing more complicated, rising costs, increase the difficulty of the assets and liabilities matching; Intensifying competition commercial bank to product innovation, business innovation, speed up the adjustment of income structure

Abstract: The impacts of interest rate liberalization on commercial banks are: first, interest rate liberalization will generally lead to the rise of interest rates level of commercial banks, interest margin will be narrow, net interest margin and net interest spreads will decrease; making commercial banks facing more complicated risk, rising costs, increasing the difficulty of the assets and liabilities matching; intensifying competition, commercial bank to product and business innovations, speeding up the adjusting of income structure. Therefore, in the process of interest rate liberalization, there are some things for China's commercial banks to do: first, to increase personnel training for interest rate risk management, integrate of resources, enhance the ability to resist the interest rate risk; Second, to change business growth mode, to reconstruct commercial bank comprehensive risk management mode in the concept of risk management, risk management system and risk management technology; Third, to establish the performance evaluation system of commercial banks, the core of which is based on RAROC (risk adjusted return on capital) and EVA (economic value added).

key words: commercial banks; interest rate liberalization; interest margins; financial innovation

If the Central Bank gradually reduces and remove the governance on interest rate, finally it will be the market itself that determine the interest rate according to the market rule, we name that action as Interest Rate Liberalization. In another word, All sectors about the interest rate, including generation mechanism, transfer channel, risks, period structure and management, will be determined by market. The currency institute will implement the currency policy and adjust the Macro-economy through indirect impact on interest rate with public transaction, instead of any direct decision.

The current study shows that financial institutes will enjoy the long-term benefits from interest rate liberalization although the temporary difficulty is inevitable. In 1990's, The progress of interest rate liberalization in developed countries has caused the bank crisis in America and other countries in Latin America. Some small and medium-size banks, which lack of capability to resist risks, had been bankrupted (Diaz-Alejandro, 1985 Vihriala, 1994; Vihriala, 1996). In addition, the bank crisis quickly spread to emerging countries. However, the studies in recent years show that Interest Rate Liberalization has created higher efficiency for financial resource. The financial institutes have got more stronger capability to resist risks and gain long-term margin (Jayaratne & Strahan, 1998; Tirtirôglu et al., 2005; Allen & Gale, 2003; Ranciere et al., 2003, Ang & McKibbin, 2007) [1]. Meanwhile, the financial governance agencies are facing the new topics on administration regulations, bank structure development and risk control from interest rate liberalization.

Since Interest Rate Liberalization became available on June 1st, 1996, based on good experience from other countries' successes and the specific local condition, our nation gradually prompted the interest rate liberalization in accordance with the rule "foreign currency first, then local currency; loan first, then saving; large amount first, then small amount". Although now the lower limit for loan and upper limit for saving have not opened up completely, the loan interest rate will be totally liberalized with the removal of lower limit in coming years. The Interest Rate Liberalization for saving will be carried out first to small banks and move forward then. Certain relevant measures, such as competent benchmark interest rate system, insurance policy for deposit and qualified financial governance, have been under consideration. The complete opening-up for interest rate of loan and saving and a truly efficient layout for interest rate liberalization will depend on adequate financial products, institute variety and transaction freedom, dimensions of financial market and currency institutes liberalization policy.

1.The impacts of interest rate liberalization on interest rate level, interest spreads, net interest margin and net interest spreads

The interest rate liberalization innovation leads to the significant change to interest rate level in banks, having impact on the interest spreads and interest margin, which is the main profit source for banks.

1)The interest rate liberalization will lead to the higher interest rate and various interest spread performance.

For most countries, the nominal and actual interest rate for saving has increased from negative or low rate to positive and high rate, which also prompting the increase of loan interest rate. According to Sache's study (1996), among the countries with complete nominal interest rate profile, 15 of them experienced interest rate growth, 5 of them experienced interest rate decrease; While among the 18 countries with complete actual interest rate profile, 17 of them experienced actual interest rate growth of various levels[2].

For developed countries, the average interest spreads had decrease after the interest rate liberalization, while this tendency is reverse in developing countries. The research shows that the average interest spreads in developed countries has reduced, such as, 54 basis points in America, 82 basis points in Japan and 21 basis points in China Taiwan (Province). Overall, the reduction is about 0.5％~1% [3]. Meanwhile, the interest spreads in developing countries kept increasing at the rate higher than the average level in developed countries.

In general, if the countries have stable macro economy, advanced financial market and regulation and take step-by-step procedures, the interest spreads will narrow after interest rate liberalization; For those countries with unstable macro-economy and radical measures, the financial vibration resulted from interest rate liberalization and the interest spread was widening as a result.

The current interest spreads in our commercial banks are on the highest level in recent 20 years, entering into the top global list. Neither the business transformation nor the risk control can benefit from such conditions. We suggest to steadily prompt the interest rate liberalization and reduce the interest spreads as appropriate[4]. In the context of greater credit funds gap between demand and supply in future, banks still play leading role for pricing. Extending the downward float interval, or even removal the lower limit for loan, will not have much impact on nominal interest rate. Some traditional banks with public business, especially the large state-owned banks, will experience the actual impact on interest rate level. According to the prediction from Research Center of McKinsey Financial Institute, the average interest spreads in banks in China will reduce by 11%-27% in coming 3-5 years[5].

2)**The interest rate liberalization will cause decrease to both net interest spreads and net interest margin**

The net interest spread represents the ratio of net interest yield (interest yield minus interest cost) to total assets of bank. It's an important indicator for commercial bank's efficiency, reflecting the transaction cost in resource configuration for financial institutes. The high interest spread always represents the efficiency loss. The net interest margin represents the return rate of net interest yield, i.e. the ratio of net interest yield to average interest earning asset. It mainly depends on the net interest spread and will be affected by the size of interest earning asset and borrowed funds.

To respond to the interest rate risks from liberalization, banks need to adjust the business structure to reduce the net interest spread. Angbazo(1997) uses dealer model frame to analyze the impact on net interest spread from interest rate liberalization and credit risks. The results show that banks tend to persue more net interest spread to compensate the risks from high breach rate and interest rate vibration[6]. Similarly, Wong(1997) also proven the positive relationship between net interest spread and interest rate vibration[7]. Drakos (2003) applied GLS method to evaluate the efficiency of 83 banks in transformation in middle-eastern Europe and former USSR. The findings indicate that interest rate liberalization lead to lower net interest spread and higher efficiency[8]. Schwaiger & Liebeg (2007) considered the lower operation fee, higher efficiency and development of non-traditional business as the main factors to net interest spread reduction[9]. Through research on interest rate liberalization in The Republic of Tunisia, Bennaceur & Goaied(2008) had found its dual effect: partial liberalization will reduce the interest spread while complete liberalization can increase the profit rate for banks[10]. Overall, the net interest spread will be downward along with the financial and economic development.

The local banks estimate that interest rate liberalization will cause the net interest spread to reduce. In the context of interest spread protection, The cross-cycle net interest margin in China Bank industry is around 2.6%. If the interest regulation is loosing, the effect is about 20BP. A complete interest rate liberalization can result in effect of 15BP. Supposing the banks maintain the current customer size, there will be the need to narrow the long-term interest spread by 80BP. The net profit rate in China Commercial Banks will reduce by 35% with assumption of net interest margin reduction by 1.2%; if net interest margin reduction by 0.7%, the net profit will be reduced by 50%(Duting, 2012). It seems to be inevitable for net interest margin to reduce after liberalization. It can be helpful to increase the profit level and efficiency by developing intermediary business.

2 Impact of Interest Rate Liberalization on risk control in commercial banks

1) The Interest Rate Liberalization brings more complex risks to commercial banks

The innovation of interest rate liberalization created high risks and more complex period structure. The interest risk control became a tough task. Banks need to find high compensation to interest risk due to saving interest rate growth. The credit risks increase sharply as a result of higher reverse option and moral risks and unqualified or lack of credit system. When two banks were present a good project and a bad project, the “negative” bank have to increase the saving interest rate when re-funding for ”bad” project. That will finally increase the risk for bankrupt.[11]. Through research on interest rate liberalization in South Korea, Raj Aggarwal et al. (2006) found the ROE has positive correlation with unexpected change to short-term interest rate, and has nothing with long-term and expected short-term interest rate[12].

The interest rate liberalization brings more competition on funding and financial resource distribution among the banks and between banks and other financial institutes. Banks are facing high operating risks(Zhanghong, 2008). With further opening-up of interest rate liberalization, more competitions came up to American commercial and saving banks, Savings and Loans Associations, Deposit and Loan Mutual Aid Association, and Money Market Funds etc (Mukherjee et al., 2001). In 1990’s, mergers and acquisition were popular in banks and those financial institutes without survival and management capability had been eliminated[13]. By analyzing the data for 76 banks in China during 1997-2006, Xiaoqing Fu(2009) found that the progress of interest rate liberalization in China drives not only the competition on core business in banks, but also competition between banks and other financial institutes[14]. In particular, banks will compete with other financial institutes on funding capacity, and compete with currency market on fund collection and professional resource.

Due to the common weakness in small and middle size commercial banks, such as lack of capital, single business pattern, low risk management level and high percentage of Non-performing Loan, the negative impact is obvious (Zhoumaoqing, (2012)). The high interest spread can not last long and small/middle-size banks are facing dual burdens from debt and asset; The saving interest rate is increasing sharply while the loan interest rate only have limited growth; the interest margin was narrowing; the term structure of liabilities and assets did not match to each other; and averse selection risk etc.(Duting， 2012), There are much more risks for losses and closures. Many small saving institutes had been closed in America and Japan at the primary stage of liberalization. For example, in each year during 1987-1991, about 200 banks in America were closed. The peak figure reached 250 banks a year, nearly one closure per day. While in late 1980, total 985 banks were failed from 1985 to 1990 in Japan[15][16].

2) The interest rate liberalization increases the cost of commercial banks and makes it more difficult to match liability to asset

At the primary stage, liberalization can help to increase interest rate of saving so as to stabilize deposit and drive loan business. However it also push the portfolio to higher cost and significantly change liability structure and term structure of saving. As a result, banks would like to seek loan projects with higher interest rate to get more profit and prevent risks[17]. Through research on interest rate liberalization of commercial banks in Thailand from 1992 to 1996, Olaf Hübler(2008) found that banks prefer to have more risky assets and reduce mortgage lending to balance the breach losses[18]. According to DuTing's opinion (2012), there will be impact of 5-6 basis points on overall saving cost if long-term interest rate is liberalized. In this case, the liability structure in banks has to face high possibility of uncertainty[19]. By creating mathematical model for lending, Porter(2009) found that both capital cost and saving return will increase due to interest rate liberalization. Small banks can get additional savings and extend the business by opening the competition channels. Large banks will cut down the saving size to control funding cost[20]. All those will lead to changes to structure of liability and assets and make it more challenge to manage risky assets.

3、The impact of interest rate liberalization on new products, new business and margin structure in commercial banks

There are four main factors for financial innovations: to persue high profit(JG Gurley & ES Shaw, 1955); vibration in financial market (M Friedman, 1982); to avoid financial governance (EJ Kane, 1988); wide application of information technology and global communication network(TH Hannon & JM McDowell, 1984; Merton, 1995). All of those four factors are included in our reform of interest rate liberalization to drive the financial innovation in commercial banks.

1) The interest rate liberalization speed up the competition among commercial banks and help to develop new product

The interest rate liberalization presents great challenge to commercial banks. They need to seek more room to make pricing by themselves, implement policy of differential pricing and increase return on loan; On the other side, they will try to maintain and add value to customer's assets, reducing the losses from interest rate vibration. The enterprises can get more capital at lower cost through financial innovation. Tufano(1989) indicates that 18% of public offering shares in American capital market in 1987 came up in middle and late period of interest rate liberalization[21]. The interest-related derivatives can hedge interest risks and significantly increase the return on loan portfolio for commercial bank. Comparing to large state-owned bank, the small and middle-size banks can take quick action to enter into relevant market and extend business scope with new products and services.

In general, the commercial banks will play its role as accounting and agent centers on higher level. Their product innovation, which transfer from capital-intensive to knowledge-intensive representing with derivatives (Liyuji, zhaoyang,2005), will maintain the stable and healthy development of bank and resist the tough competition and interest risks. As estimated by Bank for International Settlements, the value of interest exchange and other derivatives reached $600 trillion, increasing by 7 times than 10 years ago, nearly 11 times of annual global GDP; The interest rate option value increased from $8 trillion to $57 trillion during 1998-2007[22]. At present, the interest rate liberalization provides good chance to banks in China to create new products and services.

2) **The interest rate liberalization speeding up the business innovation and margin structure adjustment**

Now, about 80% of profit in commercial banks in China comes from traditional saving and lending business. They lack capability to get profit and need to change operation concept in the context of interest rate liberalization. The business innovation should focus on developing intermediary business and compensate the decrease of interest spread with non-interest spread income (Zhuhong, 2006). The global cases shows that wealth management is a main margin source for modern commercial banks, such as, the profit from wealth management accounting for 50% in total margin in Hang Seng Bank, the net profit from personal banking business maintaining 35% in recent 10 years in United Bank of Switzerland[23]. Xiao xinrong and Wu yonggang (2011) investigated the interest rate liberalization innovation in United States in 1980s. They found that interest rate liberalization played positive role to push the banks to turn to intermediary business. After liberalization, the non-interest income in American bank industry increased from 20% to 43% [24]. In recent years, banks in China kept publishing new intermediary products, such as bank cards and Personal Wealth Management Service etc. These new made more and more contribution to bank's income. In the first half year of 2009, the transaction fee and net commission in BOC, ICBC, CCB and BANK OF COMMUNICATION accounted for 21.28%、18.70%、17.90% and 14.88% in their respective total business income. For other banks, the percentage is around 6%-11%, higher than that in last year(Puya, 2010) [25].

Additionally, there are a large number of small and middle size businesses with funding issue in China. They have urgent demand on financial services and provide great profit potential to commercial banks if they can leverage the liberalization to set pricing be themselves. The commercial banks need to study the funding demand from small and middle size businesses and provide new products and service to them. With interest rate liberalization and globalization for Renminbi, more and more Chinese enterprises will extent their business oversea. It is a requirement and trend for commercial bank to develop Cross-border financial services. In addition, new IT and mobile communication technology make online banking and mobile banking the main profit source for band industry, creating more space for business innovation. (Duting, Wangsheng, 2012).

4 Conclusion and Recommendation

In summary, the interest rate liberalization will have following impact on commercial banks: 1) higher interest rate, narrow interest margin, lower net interest margin and net interest spread; 2) in the initial liberalization stage, the interest rate risks will increase due to lack of effective tools; Banks have to seek highly risky compensation and be tolerant to the un-match between liability and assets; The credit risks increase sharply as a result of higher reverse option and moral risks, management is much more difficult; 3) the interest rate liberalization prompts the commercial banks to develop new products and services to deal with risks from inflation and interest rate vibration. The commercial banks can hedge interest rate risk and increase return on portfolio through intermediary product expansion, qualified service and interest-related derivatives. What we can learn from the study are: 1) Pay more attention to interest risks and enhance personnel training for interest rate risk management to resist the interest rate risk; meanwhile, develop new derivatives to reduce interest rate risks; 2) adapt to new condition and speed up the strategic transformation for commercial banks' business mode: from extensive growth to intensive growth; reconstruct commercial bank comprehensive risk management mode in the concept of risk management, risk management system and risk management technology; establish the performance evaluation system of commercial banks, the core of which is based on RAROC (risk adjusted return on capital) and EVA (economic value added). 3) The small and middle size banks should utilize their regional and geopolitical advantages to develop new products/services and create new development mode.

We can learn the good experience from reform of interest rate liberalization in other countries in the world to better understand its impact on banks in China. As entering into the final stage of local currency reform, we need to find a right development method for our banking industry based on successful experience on strategic transformation from foreign countries.

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