Management & Engineering 22 (2016) 1838-5745

Contents lists available at SEI

Management & Engineering

journal homepage: www.seiofbluemountain.com

Research on Liquidity Risk Information Disclosure of China's Commercial Banks

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KEYWORDS

Commercial bank,
Liquidity risk,
Information disclosure

ABSTRACT

Liquidity risk information disclosure is the core issue of commercial banks management and financial supervision, completely and timely information disclosure will enhance a bank's risk management capabilities. This essay selects the 2013 A-share Annual Reports of the four state-owned commercial banks as samples to analyze the current state of China's commercial banks' liquidity risk information disclosure. Based on the Basel Committee on Banking Supervision's recommendation of liquidity regulatory, this essay put forward the suggestions of China's commercial banks' liquidity risk information disclosure.

1 Introduction

Commercial banks' main businesses are deposit-taking and making loans and earn spreads, which mean that the liquidity risk is a significant risk to commercial banks. Liquidity risk is a risk that a bank will not be able to meet efficiently the expected and unexpected payment obligations without affecting its daily operations. Liquidity risk is ever-present in a bank, while lack of liquidity, a bank can't raise enough money at reasonable prices to meet the fund needs of client, thus affecting its profitability, in the extreme cases, even lead to the bank bankruptcy due to insolvency.

The Basel III Accord requires commercial banks to meet the disclosure requirements which will allow market participants to access key pieces of information on the scope of application, capital, risk exposures, risk assessment and management processes. To improve the measurability and operability of the liquidity risk, the Basel Committee on Banking Supervision has developed two minimum standards for funding liquidity, the first one is Liquidity Coverage Ratio (LCR) and the second one is Net Stable Funding Ratio (NSFR). In 2007, "Commercial Bank Information Disclosure Measures" also stipulates that commercial banks should disclose "credit risk, liquidity risk, market risk and operational risk and other types of risk and risk management." [1]

2 Research on Current State of China's Commercial Banks' Liquidity Risk Information Disclosure

2.1 The current state of China's commercial banks' liquidity risk information disclosure

This essay selects the 2013 A-share Annual Reports of Bank of China, Agricultural Bank of China, Industrial and Commercial Bank

DOI:10.5503/J.ME.2016.22.010

of China and China Construction Bank as samples to analyze the approaches and details of China's commercial banks' liquidity risk disclosure.

Table 1 Commercial bank liquidity risk disclosure indicator

Indicator Code	Disclosure
L1	Liquidity ratio
L2	Loan-deposit ratio
L3	Excess reserve
L4	Inter-bank ratio (Inter-bank borrowings ratio/Inter-bank loans ratio)
L5	Liquidity gap
L6	Liquidity risk measurement, internal control and management information systems
L7	The short-term convertible (to cash) liquidity assets, short-term financing capacity and cost
L8	Capital adequacy ratio
L9	Core capital adequacy ratio
L10	Cost to income

Table 2 Commercial Bank liquidity risk disclosure

Indicator code	Liquidity risk indicator				Regulatory standards
	Bank of China	Agricultural Bank of China	Industrial and Commercial Bank of China	China Construction Bank	
L1	48.0% (RMB) 62.2% (Foreign currency)	43.57% 114.95%	30.2% (RMB) 61% (Foreign currency)	46.57% (RMB) 55.20% (Foreign currency)	≥25%
L2	72.52%	61.17% (RMB and foreign currency)	66.6% (RMB and foreign currency)	70.28%	≤75%
L3	1.7% (RMB) 23.8% (Foreign currency)	4.66%	Did not disclose	2.66%	-
L4	0.2% (Inter-bank borrowings) 2.3% (Inter-bank loans)	Did not disclose	Did not disclose	Did not disclose	≤8%
L5	961,477 In RMB millions	671,194 In RMB millions	1,278,463 In RMB millions	1,074,329 In RMB millions	-
L6	Qualitative Disclosure	Qualitative Disclosure	Qualitative Disclosure	Qualitative Disclosure	-
L7	Qualitative Disclosure	Qualitative Disclosure	Qualitative Disclosure	Qualitative Disclosure	-
L8	12.46%	11.86%	13.12%	13.34%	≥8%
L9	9.69%	9.25%	10.57%	10.75%	-
L10	30.61%	36.3%	28.03%	29.65%	-

According to the data of Table 1 and Table 2, the relevant provisions for liquidity risk disclosure of the state-owned commercial bank and regulatory standards to China Securities Regulatory Commission, China Banking Regulatory Commission, The People's Bank of China are basically the same, but a slightly difference in disclosure forms and disclosure position.

2.1.1 The disclosure of liquidity risk indicators

Bank of China, Agricultural Bank of China, Industrial and Commercial Bank of China and China Construction Bank disclosed the Liquidity ratios in RMB and foreign currency, and the ratios comply with the regulatory standards. Liquidity ratio in RMB of ICBC is lower than the three other banks, but the Liquidity ration in foreign currency of ABC is much higher than BOC, ICBC and CCB. All the banks' Loan-deposit ratios in RMB comply with the regulatory standard that should less than 75%. All the four banks did not disclose the Loan-deposit ratios in foreign currency. BOC disclosed the Excess reserve both in RMB and foreign currency while ICBC, ABC, and ABC did not disclose the indicators. The four banks disclosed the Liquidity gap data, assets that mature in a certain period subtract liabilities that mature in the same period, which used to assess to liquidity risk.

2.1.2 The disclosure of liquidity risk management

The liquidity risk management of the four state-owned commercial banks covered liquidity risk identification, measurement and control procedures, internal controls and oversight mechanisms, information management systems and crisis management mechanism. By optimizing the asset and liability structure, stabilizing deposit base, maintaining appropriate high quality liquidity assets reserve ratio, the four banks are able to meet the payment demands from clients. The four banks developed interbank financing business management system to implement the whole process of cash flow management for interbank financing business.

2.1.3 The disclosure on capital structure and capital adequacy ratio

Capital adequacy ratio and core capital adequacy ratio of the four state-owned commercial banks consistent with the Committee's capital adequacy standards that no lower than a minimum 8%. They also disclosed the detailed core capital adequacy, tier 2 capital and risk-weighted assets.

2.2 Issues of China's commercial banks' liquidity risk information disclosures

2.2.1 Insufficient liquidity risk disclosure

Compared with international standards, the two quantitative indicators, Liquidity coverage ratio (LCR) and Net Stable Funding Ratio (NSFR), which required by Committee were not clearly disclosed. Although the four state-owned commercial banks have established a system of quantitative analysis of liquidity risk, but liquidity risk indicators and disclosure form is not entirely uniform. Liquidity risk rating and risk measurement techniques are relatively backward; For example, Deutsche Bank uses the Maximum Cumulative Outflow (MCO), stress testing and financing matrix to analyze liquidity risk. But China's banks can not quantify the risk data because of the lack of risk monitoring model.

2.2.2 Only few ways to disclose liquidity risk

Liquidity risk disclosure of china's banks basically follows the traditional ways that only disclose some qualitative information and indicators. Foreign banks focus on disclosing the results of risk measurement model and quantitative analysis of the results, while China's commercial banks liquidity management strategy is only a brief description, do not use measurement model to disclose.

2.2.3 Liquidity risk disclosures content is not standardized

China's commercial banks liquidity risk information disclosure needs to meet the requirements not only for China's supervision of regulatory authorities but also for the Basel Committee. Liquidity risk information disclosure should include accounting treatment for liquidity risk disclosures, and risk exposure disclosure and liquidity risk measurement methods and models disclosure, etc. [2] However, because there is no specific information disclosure guidelines, domestic commercial banks were basically based on their own understanding of the liquidity risk information disclosure requirements to disclose, the risk information each bank disclosed is not standardized and not uniform.

3 Theoretical Analysis of Commercial Banks' Liquidity Risk Information Disclosure

3.1 The motivation of commercial banks' liquidity risk

According to the *New Basel Capital Accord*, the Basel Committee requires the balance sheet assets and off balance sheet assets of Commercial Banks to be classified into bank accounts and trading accounts. Trading account is the financial derivatives and trading portfolio, which are held by a financial institution and can be traded freely, trading account is used to employ a trading or evade the other trading account risks. Bank account includes Investment Portfolio, Deposit Account and Credit Account.

From the formation mechanism on the liquidity risk of commercial banks, although the direct cause of bank bankruptcy is the liquidity risk, however, liquidity risk is not entirely determined by liquid asset itself. Long term uncontrolled accumulation of credit risk, market risk and operational risk and other types risk, will eventually broke out in the form of liquidity risk. Liquidity risk and other types of risk are not isolated separately, but are linked closely. Other types of risk may be converted into liquidity risk so that commercial banks would fall into payment crisis. [3]

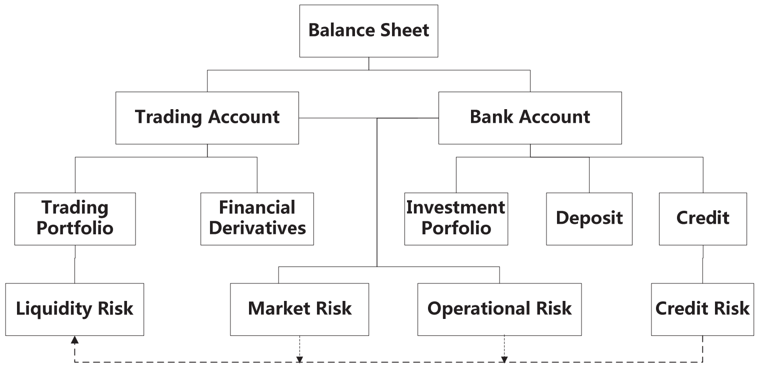

Figure 1 Map of all types of risk for Commercial Banks

3.2 Costs-benefit analysis on information disclosure of commercial banks

Information disclosure costs of commercial banks include tangible costs and intangible costs. Tangible costs are the humans, materials and financial resources etc., which are used to collect process and disclose risk information. Intangible costs are the negative impact that gives rise to the public after the information is disclosed, that is to say, opportunity cost. The earning on information disclosure of commercial banks, which consists of two parts, is not direct income. One part is the commercial banks' own earnings. A confidence formula is used to measure the public confidence about banking system in international banking frequently, Confidence=f (NW, SOE, IQ, G). The Confidence which reflects the publics' confidence is determined by four factors, such as net worth of commercial bank (NW), the stability of equity income (SOE), information disclosure quality of commercial bank (IQ) and government guarantees (G). The other part is the earning of those who need the information. If they urgently need the relevant information, they will obtain information through various channels even if commercial banks do not disclose the information. The ways of collecting information like this waste a lot of resources. Unified information disclosure of commercial bank not only facilitates the information users but also saves a lot of social resources. [4]

3.3 Institution of liquidity risk information disclosure of commercial banks

Two regulatory indicators, liquidity coverage ratio (LCR) and net stable funding ratio (NSFR), were officially introduced in *Commercial Banks Liquidity Risk Management Approach (trial)* issued by China Banking Regulatory Commission in October 2011. The depth and breadth of risk information disclosure of China's commercial banks are brought in line with the international standards gradually. The Basel Committee established the new liquidity regulatory regulation *Basel Accord III: liquidity coverage rate and the monitor tools of liquidity risk*, the Basel Committee raised the importance of the liquidity risk supervision equal to capital adequacy ratio. [5] China Banking Regulatory Commission promulgated *Commercial Bank Liquidity Risk Measurement (trial)* in February 2014 and has come into force since March 1, 2014. The liquidity risk indicators of commercial banks include liquidity coverage ratio, loan-deposit ratio and liquidity ratio. The liquidity coverage-ratio, which meets the liquidity need at least the next 30 days through the realization high quality liquidity assets of commercial banks, is not less than 100%. Loan-deposit ratio is not more than 75% and liquidity ratio is not less than 25%. "From aspects of asset–liability mismatch, diversification and stability of financing sources, asset with no realization obstacle, major currency liquidity risk and market liquidity to regularly monitor and analyze the commercial banks and the banking system." [6]

4 Suggestions for Liquidity Risk Information Disclosure of China's Commercial Banks

4.1 Learning from the advanced foreign experience and normalizing the standards of liquidity risk information disclosure

Financial regulatory institutions need to establish a legal system which meets not only the new liquidity supervision regulation of Basel Agreement but also the actual situation of the China's banking system as soon as possible. Give high priority to revising the rules of information disclosure that need improve urgently, use internationally accepted quantitative risk measurement model as soon as possible. Make the risk information disclosure standards and contents to be more specific, more operational.

4.2 Establishing a comprehensive risk assessment system

Regulatory institutions need to set up an effective system to identify, measure, monitor, and control liquidity risk, and ensure a reasonable cost to meet the banks' liquidity risk supervision requirements. Commercial banks should improve the liquidity risk management processes and contingency pre-arranged planning, create the limits and early warning system of liquidity risk and establish a comprehensive risk management system, which has the whole process monitoring system of screening, alarming, decision-making, and hedging liquidity risk.

4.3 Strengthen the supervision of regulatory authorities

Financial regulatory institutions need to develop uniform principles, standards and report forms to standardize the scope and frequency of information disclosure, and timely monitor the implementation of the liquidity risk information disclosure. Strengthen the coordination functions of securities regulators and banking supervision in the information disclosure system. Leverage the advanced computer technology, to develop the information systems and econometric measurement models, enhance the early warning functions of information disclosure to commercial banks.

5 Conclusion

Liquidity risk information disclosure is the core issue of international financial regulation. In order to strengthen supervision, the Basel Committee raised the importance of the liquidity risk supervision equal to capital adequacy ratio. The essay uses the annual reports of the four state-owned commercial banks as samples to analyze the current state of China's commercial banks' liquidity risk information disclosure. Comparing to the new Basel regulatory compliance requirements, points out the shortages of domestic banks' disclosure. Moreover, this essay puts forward that China banks need to continuously improve their liquidity risk measurability and operability to meet investors, depositors, regulatory authorities and other stakeholders to understand the risk situation and risk management of banks.

Foundation:

This essay is supported by "the Fundamental Research Funds for the Central Universities". Project number: 2014YJS057.

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