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Comparative Study on the Implementation of Basel III in Different Regions

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Abstract

Based on the review of the development of Basel Capital Accord, this paper analyzes the major breakthrough of Basel III in the reform of capital regulation. The research on the comparative implementation of the banking industry in Europe and the United States, shows that although there are standard approaches and sound internal processes to evaluate risk, in the long term, there are some deficiencies because the weighted asset measurement is too complex. And smaller banks may be less competitive and harder to grow in practice for the strict regulation rules inevitably lead to higher costs for small-sized banks, and slower credit growth. Eventually, it provides reference for China's banking industry to implement Basel III in China, it is supposed to implement differentiated supervision for different sized commercial banks, and take into account the coherence of policymakers and regulators.

Keywords

Basel III; Banking Supervision; BCBS.

1. Introduction

The Basel Committee on Banking Supervision (BCBS) has published the rules for Basel III. The implement situation of different territories is quite different. In the first part, the article will provide some main evaluating elements 13th progress report of in a more easy and accessible way. Then, the article will focus on the comparison of the implement status for Basel III in the United States and the Netherlands, one in the non-EU territory and another in EU territory. Thirdly, some changes in Basel III will be given, then there are also some critical analyses about the changes in Basel III. The thesis ends with some inspirations given for the supervisory review process in China through the above analysis.

2. The Difference between the US and the EU in the Implementation of Basel III

We choose the Netherlands, which represents an average implementing level in EU. From the form in the Basel III 13th progress report, we can find that United States' implementation of Basel III is much less than that of the European Union and the Netherlands. Many projects have not yet been enacted or implemented, including the Capital requirements for equity investment in funds, SA-CCR, Capital requirements for bank exposures for CCPs, Monitoring tools for intraday liquidity management, Pillar 3 disclosure requirements. Most of them are in the status of having published draft for the Netherlands. The Netherlands, as one of the first members to join in the Basel committee, has always been in the leading status of progress for Basel I, II earlier, it has not actually been a bellwether for implementing Basel III at the international level, the EU and Netherland's progress is also lagging behind the international requirement regulated, but the United States is even worse. However, they both have done a well in the countercyclical buffer, margin requirements for non-centrally cleared derivatives, G-sib, CCYB and leverage ratio, which have been published final rules and implemented already.

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The US Basel III Final Rule was issued by the Banking Agencies (Fed, OCC, and FDIC)(Masera, 2013). Netherlands is mainly implementing the EU's bank regulatory system, which includes capital requirements regulation(CRR) and capital requirements directive(CRD). The Fed's proposal to implement the Basel III rules has brought financing of small bank problems. According to the federal deposit insurance corporation (FDIC) by the end of 2016(Fdic.gov, 2018), banks of which assets is less than $1 billion account for 87.57 percent of all Banks. There are 114 big Banks with assets of more than $10billion, only accounting for 2 percent of all the banks. Although the number of these community banks is significantly larger than that of large banks, the size of their assets is far lower than that of big Banks [2]. Then, small and medium-sized Banks have higher borrowing costs and limited credit and financial services, so if they are implemented the same rules of the big banks, their development capability will be limited. For this reason that small and medium-sized banks, represented by community banks, hold the opinion that liquidity rules of Basel III are only suitable for systemically important banks. Their profit is more reliable on traditional projects like residential mortgages. Their trading amount of derivatives is much less than large-sized banks(EMEA BANKING, 2018).Under enforcement, these banks may sell assets and then withdraw from the market, it is harmful to the economic recovery in the United States after the financial crisis, which is also on the contrary of the aim of implementing Basel [1]. What's more, The implementation cost of community banks is too high, which may reduce the competition capability in the system. They are significantly weaker in terms of manpower, equipment than systemically important big banks. The complicated regulatory burdens imposed by Basel III will add to their cost. Take an example, in calculating the risk weighting, of which calculation method is more complex, over-reliance on standardised risk weights or non-risk-sensitive leverage ratios can have unintended consequences, especially for small-sized banks. This would encourage banks to hold riskier assets, while significantly increasing the cost of funding portfolios of low-risk-weighted assets, including mortgages and high-quality liquid assets. Improper capital allocation increases the amount of insolvent institutions in the face of a systemic crisis.

Then, the EU developed convertible structures, which do not exist in the United States, is a big difference. It also takes the problems of Tier 1 contingent convertible capital (COCOS) to bank system in the US(Myles and Danielle, 2018). In the regulation orders in the US, whatever the conversion of equity in the future, the conversion will not be included in the extra tier one capital. This is not the same as rules in Basel III and CRD VI. The Fed's rules setting is concerned about issuing shares too generally of banks. For example, many big Banks could turn into tier 1 capital by sending perpetual preferred shares that will never accumulate to meet the capital requirement.

The reasons above all cause the difference of the implement level between EU and US.We can find the most obvious difference for implement of Basel III in the United States and the Netherlands is the monitoring tools for intraday liquidity management(Bis.org, 2018). It is an important element evaluated by the committee has been defined above. It can be discovered that the regulation of Netherlands complies with EU regulations. Day liquidity management (ILRM) is closely related to the real-time payment and settlement system, which is not mandatory and non-public. The bank's nature short-term borrowing, and the nature of long-term loans and the characteristics of high leverage determine the importance of liquidity risk prevention [3].The US's bank rules are dominated by the federal and the financial stability oversight council (FSOC). Day liquidity data cannot be released to the public like other information, because it is confidential for commercial Banks. A shortage of daytime liquidity in a bank could trigger a liquidity scare. Data collection is relatively easy for banks of large real-time payment systems, but it is difficult for other Banks and the collection cost is high. Therefore, it is quite hard for the US to publish and implement it well at this time. It is for the reason that the amount of small or medium-sized banks US's bank have an advantage in its bank

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system, most of which do not use the real-time payment and settlement system, and the cost of this element will be too high for them. Netherlands' banking system is different from the US one, and it is closely followed by the EU regulation, so it will be much easier to implement. ILRM has been published and finished implement.

The new revision of Basel III reform improved the global regulatory framework. It improves the standard approach to calculate the credit risk adjustment, CVA, and operational risk(EMEA BANKING, 2018). To keep continuity with Basel II, LGD, PD and EAD remain for setting models to calculate economic capital, expected loss or regulatory capital for a banking institution in Basel III(Hilscher and Raviv, 2014). Basel Accord is concerned with unexpected losses, UL in a segment:

$$\text{Unexpected Loss (UL)}= f(PD)xLGDxEAD \tag{1}$$

But stricter regulatory requirements are implemented in Basel III, see Table 1.

Table 1. Major changes in Basel III over Basel II

Requirements	Under Basel II	Under Basel III
Minimum Ratio of Total Capital To RWAs	8%	10.50%
Minimum Ratio of Common Equity to RWAs	2%	4.50% to 7.00%
Tier I capital to RWAs	4%	6.00%
Core Tier I capital to RWAs	2%	5.00%
Leverage Ratio	None	2.50%
Countercyclical Buffer	None	3.00%
Minimum Liquidity Coverage Ratio	None	0% to 2.50%
Minimum Net Stable Funding Ratio	None	100% of 30 days

Then, the usage of the internal model method has been limited through limiting some inputs in internal ratings based approach, IRB, of credit risk method to calculate the capital requirement and eliminate the use of CVA and operation risk of the internal model method. In addition, introduce the leverage buffer to further limit the leverage of global systemically important banks. The initial stages of the Basel III reform focused on strengthening the regulatory framework to further improve the quality, the level of capital fund and to establish a large exposure system to mitigate the systemic risks arising from the interconnection or centralized exposure of financial institutions[4]. Then, to solve the problems of externalization generated by systemically important banks by setting up the buffer of capital. Then an international framework is introduced to mitigate the risk of excess liquidity and the conversion of maturities through liquidity coverage and net stable financing ratios. PD, Default probability, is the basic condition for risk management. Only after making a reasonable measurement, the banks are able to calculate the expected losses. Therefore it is necessary to make an objective and accurate assessment of the credit situation of the customer, so as to ensure the scientific and effectiveness of the credit risk management of commercial banks. In addition, it is an objective measure of the merits of different rating systems. The main reforms are on counterparty risk as well. There are requirements for calculating risk weighted assets, RWA, for exchange trade of derivatives. The RWA are not only supposed to be calculated institutions, but also needs to be calculated for obligors.

What's more, in the Basel III, all the intermediary business are included in the measure of capital adequacy ratio, and the off-balance sheet business is divided into eight categories. All kinds of intermediary business can be converted into the amount on balance sheet, then use the

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weight to weight the figure, finally according to the standard capital adequacy ratio of the off-balance sheet business value allocation of capital [5]. This makes the intermediary business and capital ratio requirements hang up to restrain the expansion of the off-balance-sheet business of Commercial Banks and promote its active and prudent intermediary business. When PD, LGD EAD, CCF changed, the most vulnerable banks are those in small sizes, with low liquidity, and assets. The banks which have fewer funds are more likely to be affected because the development of the mortgage loan will be limited, their capability of capture money diminish. BCBS added some rules to the structure of the global regulatory framework. Though the Basel committee of risk-weighted assets has positive progress, there are some problems(Allen et al., 2010). Like each risk has several measuring methods to choose. It makes more complex between objectives. It makes the medium and small-sized banks of cost increases. In addition, a Small sized bank with weak capital strength is vulnerable to be influenced when they need to adjust the capital structure of internal management. Their ability to resist risk is weak, rules which are too strict may even cause the systemic risk. The bank should successfully measure the probability of customer default. Relying not only on the scientific application of advanced statistical models and quantitative tools but also on the deep and scientific understanding of the operation and management rules of modern commercial Banks.It is necessary to adapt to the concept, system, and mechanism of management, so as to enhance the quality of risk management of commercial banks.

In conclusion, the implement status of United States in the non-EU territory is behind that in EU territory like the Netherlands. The reasons are diversified, which includes the unique banking system in the US (the percentage of small or medium-sized banks). What's more, as for the parameters such as PD, LGD, EAD, and CCF in internal model approaches have a different effect on banks, especially small or medium-sized banks. Moreover, some proposal in Basel III have some deficiencies because the weighted asset measurement is too complex and the ability of small and medium-sized banks to withstand risks is initially weak.

3. The Implications from Comparison for the Supervisory Process to China

In China, core principles of effective banking supervision, as guidelines of domestic banking regulatory framework, is from the document named Measures for the Control of the Capital of Commercial Banks, published by China Banking Regulatory Commission in 2012. This accord is not only ensuring full, timely and consistent implementation of the Basel III framework, and thus to contribute to national financial stability. Different regulations are proposed for banks of different sizes and there is also a transition period for banks to meet the conditions. However, there was no significant difference in the regulatory measures for banks not up to standard implement. Combined with the implementation experience of BASEL Ⅲ accord in the United States and European Union, small and medium-sized banks may meet more difficulties. When small financial institutions face low capital adequacy ratios, it is easy to appear the condition of lack of conservation buffer, high degree of risk concentration and lack of adjustment in management methods of risk measurement, on account of scarce capability to compete on the big financial institutions. Therefore, during the transition period, some preferential treatment can be given to small banks. Besides, we found that the banking authorities in Europe and the United States lacked enforcement of Pillar II surveillance inspections. It is due to the separation of the policymaking body and the implementation body, which is also a problem worth paying attention to. Lastly, there may be inconsistencies among regulations. For example, there may be conflicts between EU regulations and national regulations, core country demands and non-core country demands, civil law system and common law system, eurozone demands and non-eurozone demands in the European Union, resulting in the implementation of Basel III has to

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give way to it. The supervisory institution of China should minimize these conflicts and coordinate the relationship between different laws and regulations.

4. Conclusion

Basel III has further expanded the concept and system of capital supervision, which can better cope with the impact of economic cycle and business environment. However, according to the problems encountered in the supervision, differentiated supervision should be carried out considering the different scale of banks, so as to enable banks to carry out differentiated development and competition. In particular, small and medium-sized banks need to be provided with flexible supervision. What's more, do not create contradictions between the implementation of different departments.

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