Proposals for New Development in Financial Regulations
― Impact Analysis of Post-Financial Crisis Global Financial Regulatory Reforms on Real Economy and Financial Markets―

Research Group on the Financial System※

I. Developments in and Impact Analysis of Global Financial Regulatory Reforms

1. Developments in Discussions on Global Financial Regulatory Reforms

(1) Developments in Global Regulatory Review

The collapse of a leading investment bank in the U.S., Lehman Brothers, in September 2008 triggered a worldwide financial crisis. Against such a backdrop, the first G20 Summit (the Summit on Financial Markets and the World Economy) was held in Washington in November 2008. In this summit, agendas including responses to the financial crisis and reforms of financial regulation and supervision were discussed. The Financial Stability Board (FSB), the Basel Committee on Banking Supervision (BCBS), the International Organization of Securities Commissions (IOSCO) and other relevant bodies embarked on discussing the specific reforms of financial regulations. The G20 Seoul Summit which was held in November 2010 endorsed the Basel III rules text and its focus on both enhancement of the capital adequacy rules and introduction of the leverage ratio requirements and liquidity requirements. At the following November 2011 Cannes Summit, G20 leaders endorsed the implementation of 'policy measures to address systemically important financial institutions (SIFIs).

Since then, topics of discussions have been sub-divided into more specific areas; for example, the fundamental review of the trading book, the revision of the calculation methodology for risk-weighted assets (RWA), which are included in the denominator to calculate the capital ratio for banks' equity investments in funds, and the regulation of market transactions including derivatives mandatory clearing and margin requirements for non-centrally cleared derivatives.

(2) Responses in the U.S. and Europe

(i) Responses in addressing international agreements

The progress in the implementation of domestic regulations developed in accordance with internationally agreed rules varies across individual countries. For example, in the

※ The Research Group on the Financial System is a research body within the Japanese Bankers Association founded in February 1984. Its members are scholars of economics, finance, and public finance. The recommendations provided by the Research Group are independent of the views and opinions of the Japanese Bankers Association itself. Regarding the similar topic with the present one, the Research Group has issued the recommendations "Post-Financial Crisis Regulatory Reform Proposals - From Global "One-Size-Fits-All" to Locally-Specific Regulations -" and "Prudence Policy for Stable Economic Growth" in 2010 and 2011, respectively. (See "Reference Papers" and "Summary of Past Recommendations".

U.S. and Europe, Basel III has been implemented with a one-year delay from the internationally agreed timeframe. Additionally, there are some areas that differ from the internationally agreed rules. For example, in the U.S., countercyclical capital buffers are applied only to advanced large banks under certain circumstances. Also, while the Basel III requires banks to deduct significant investments in unconsolidated financial entities from Common Equity Tier1, in Europe, significant holdings in insurance companies will be exempted from deduction.

On the other hand, some countries are moving toward the introduction of more strengthened regulations beyond internationally agreed rules. For example, in the U.S., a consultative document was published in July 2013 to propose a leverage ratio of 2 to 3 percentage points higher than that of Basel III. In Europe, the Capital Requirements Directive IV (CRDIV) was enacted in July 2013 which allows a maximum of a 5% capital surcharge at national discretion. In Switzerland, two systematically important banks are required to have an even higher total capital adequacy of 19%, including capital conservation buffer.

(ii) Movement to implement individual countries'-specific requirements and their cross-border applications

In addition to the initiatives to implement domestic regulations aligned with internationally agreed rules, there is a move to implement individual countries'-specific requirements in order to strengthen their own financial system of individual countries.

Based on lessons learned from the financial crisis, in the U.S. and Europe, there are discussion on Banking structural reform, which intends to prohibit banks from engaging in risky trading activities or oblige them to separate such activities. In December 2013, the U.S. five agencies approved the final rules implementing the Volcker Rule, which prohibits insured depository institutions from engaging in short-term proprietary trading for their own account and imposes limits on investments in certain funds. During the same month, the U.K. enacted the Banking Reform Bill which requires major banks to separate their retail banking from their group's operations (retail-ring fencing) and further strengthens the capital requirements. In addition, regulatory authorities in Europe are discussing a reform to oblige major banks to separate own account trading activities, etc. to another entity within the group.

Moreover, a move toward "cross-border applications" has been observed as well. It intends to apply their individual countries'-specific regulations at a global level, by requiring overseas operations of financial institutions in their individual countries and global operations of foreign banks entering into their individual countries to adopt such individual countries' -specific regulations. For example, in the U.S., if a counterparty is located in the U.S., the Volcker Rule and derivatives requirements will be applied to certain banks located overseas over a specified size. Further, with a view to regulate foreign banks, a proposal has been discussed which requires foreign banks operating in the U.S. over a specified size to comply with, on a global consolidated-basis, the U.S. specific higher capital and leverage ratio requirements. In Europe, 11 EU member states agreed to introduce a financial transaction tax (FTT) and have been discussing whether to impose such a tax on transactions executed by financial institutions in other countries if their counterparty is a financial institution located in either of those 11 states, or if they trade financial instruments issued in those 11 states.

2. Analysis of Impacts on Real Economy and Financial Markets

(1) Overlapping regulations and their cumulative impacts

As a result of introduction of a number of regulations by many regulatory authorities after the financial crisis, they could lead to the following overlapping regulations and their unintended cumulative impacts:

(i) Concern over shortage of high quality liquid assets

For the short-term resilience of a bank's liquidity risk profile, the Liquidity Coverage Ratio (LCR) requires banks to keep a stock of unencumbered high quality liquid assets (HQLA) above a certain level, composed of cash and sovereign debt in response to a significant financial stress. The margin requirement for non-centrally cleared derivatives limits eligible collaterals to cash, high-quality government and central bank securities for margin. Further, the FSB is now discussing the regulatory framework for minimum haircuts on non-centrally cleared securities financing transactions including government bonds.

These regulations could collectively increase a demand for government bonds, which could result in a negative impact (e.g. decrease in liquidity of government bonds in the secondary market). In fact, the report of the BIS Committee on the Global Financial System expressed its concern over temporary shortage of government bonds in some jurisdictions.

(ii) Possibility of giving disincentives

Under Basel III, the leverage ratio requirements were initially introduced as a complement to the risk-based capital adequacy rules. The Discussion Paper "The regulatory framework: balancing risk sensitivity, simplicity and comparability," published by the BCBS in July 2013 suggests an idea of introduction of a buffer for the leverage ratio and the higher leverage ratio requirements for global systemically important banks (G-SIBs). As well in the U.S., a proposal is under discussion which requires foreign banks operating in the U.S. over a specified size to comply with, the U.S.-specific higher risk based capital and leverage ratio requirements on a global consolidated basis.

Depending on the level of such ratios, the leverage ratio requirement which is supposed to be a complement to the capital adequacy rules could in effect be more binding than the risk based capital adequacy rules. In that case, however, it could give wrong incentives to financial institutions. For example, where the minimum Tier 1 capital adequacy ratio is 8.5% and the average risk weight is 45%, and if the required minimum leverage ratio is over approximately 3.8%, the minimum leverage ratio could be the binding minimum capital adequacy ratio. Such cases may result in unintended incentives for banks to reduce low-risk assets and increase high-risk assets. As well, it may significantly compromise the importance of risk sensitivity which the BCBS recognizes as a central element to enhance regulatory framework.

(iii) Capital adequacy rules and enhancement of risk coverage

The minimum capital adequacy ratio was determined based on the costs/benefits analyses of its macroeconomic impacts and using the historical data by the BCBS. The calculation standard for RWA for the capital adequacy ratio rules has been changed; the assumptions underlying these analyses have changed as well. Eventually, however, adverse macroeconomic impacts and costs arising from revision of the calculation standard used to derive RWA were not taken into account in determining the minimum capital adequacy ratio. The cumulative impacts on the entire capital adequacy rules might have been more substantial than the estimates by the BCBS.

Nonetheless, international regulatory and supervisory authorities have not carried out a sufficient assessment of overlapping regulations and their cumulative impacts.

(2) Researches on Regulatory Impacts

A number of studies have been carried out on the capital adequacy rules which are the core of international financial regulations. [1]. While there is a number of newly emerged rules as part of the regulatory reform, the number of studies is not sufficient that analyze the impacts of these new rules on the behavior of banks and the real economy. As a full picture of respective regulations has become clearer, however, new studies are now gradually accumulating that analyze such impacts and the interaction among the various regulations.[2]

Kiema and Jokivuolle (2014) carries out a theoretical study on the impacts of the leverage ratio requirements, taking into account its mutual interaction with the capital adequacy rules. This study indicates that the leverage ratio requirements for complementing the capital adequacy rules has transformed the incentive of banks (i.e.,

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[1] The survey paper by Santos (2001) provides a detail theoretical study on the capital requirement framework.

[2] Studies on financial transactions not subject to regulation (shadow banking) are also gradually accumulating. The survey paper by Adrian and Ashcraft (2012) provides a detailed insight on this area.

the lending behavior) and could lead banks' portfolios more alike and their loan portfolios more homogeneous. As a result, if the model risk is severe (i.e,, if an unanticipated shock occurs to the loan default probability), such a shock could spillover on the entire banking sector, undermining its stability.

Distinguin et al. (2013) carry out an empirical analysis on the relationship between the liquidity and the capital ratio based on various definitions, demonstrating banks with lower liquidity on the Basel III definition have lower capital ratios, support the liquidity enhancement requirements and call for the need to further clarify and the way to measure liquidity.

Chung and Keppo (2012) analyze the impacts of the Volcker Rule, using a probability model. This analysis points out a possible rise in the banks' default probability due to decrease in the level of capital buffer, caused by prohibition of own account trading that could reduce banks' equity value.

Besides, the issues on cyclical implications of the capital standards are raised by Kashyap and Stein (2004) after the publication of Basel II.

To address this issue, Basel III introduced the countercyclical capital buffer. Results of empirical analyses vary, however, on the correlation between business cycles and the banks' behavior to hold the capital buffer. Given this, it should be further discussed on how best to implement the countercyclical capital buffer.[3] Additionally, a view exists that correlation between the economic cycle and capital buffer could vary depending on individual countries and specific attributes of financial institutions (Jokipii and Milne [2008]).[4] One-size-fits-all regulations without taking account of such differences and attributes should be more cautiously discussed.

Regarding the post-crisis regulatory reform, some individual countries strengthen regulations on their own (such as the Volcker Rule in the U.S. and/or the other additional requirements on G-SIBs by various individual countries), whilst others have voiced the necessity of promoting a level playing field in the banking industry.

Bengui (2011) presents a theoretical study that a regulatory enhancement in the home country could give an incentive for a bank to undertake higher risk-taking activity in other countries (based on the externality). Ongena et al. (2013) conduct an empirical analysis that tightening regulation of an individual country by reducing domestic profitability has an impact on both domestic and overseas economies, calling for attentions to the tightening regulations independently promoted by individual

[3] Ayuso et al. (2004) prove the negative correlation between the capital buffer and economic cycle, while Jokipii and Milne (2008) demonstrated the opposite outcome. Further, if a bank voluntarily holds the additional capital buffer in times of economic expansion, this new requirement (countercyclical capital buffer) could not need to be imposed.

[4] For example, Jokipii and Milne (2008), in its empirical analysis using the data of European banks, demonstrate that capital buffer of small banks exhibit positive co-movement with the economic cycle, while that of large banks exhibit negative co-movement.

countries.[5] Morrison and White (2009), theoretically proving the appropriateness of a level playing field on one hand, also point out a negative impact of a level playing field on well-regulated countries on the other.

Based on the above consideration, our recommendations are as follows:

II. Recommendations

1. Regulatory and supervisory authorities should thoroughly examine the cumulative impacts of regulatory overlapping. If any unintended consequence found, the FSB and other relevant regulatory bodies should reassess to adjust such regulatory overlapping as necessary.

While topics of the recent international regulatory reforms have been subdivided into more detailed areas, regulatory overlapping and their cumulative impacts have not been fully assessed.

If the impacts of various regulations accumulated without adequate adjustments,, continuous economic growth could be deterred by market distortions.

Mutually unadjusted multiple regulations could trigger a fallacy of composition that opens a way to a weaker destabilized financial system. An example of such case is a possible shortage of market liquidity due to the overlapping effect of liquidity and margin regulation as mentioned above.

Regulatory and supervisory authorities should carefully monitor the any possible "unintended consequences" of cumulative impacts of overlapping regulations to be reported to the G20 meeting.

Once such unintended consequences were identified, the FSB and other relevant bodies should promptly revise and/or adjust relevant regulations to ensure the ultimate goal of the financial system stability.

2. Individual countries should keep the effectiveness of international agreement by introducing their domestic regulations in accordance with the former.

The G20 agreed to fully implement the strengthened capital adequacy rules of Basel III in 2019, with a stepwise implementation started in 2013.

Japan enforced the phase-in rules in 2013 as a domestic rule, in accordance with the internationally agreed timeframe. In other G20 countries, however, the U.S. and the EU.will implement the rules with one year delay in 2014.

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5 Beltratti and Stulz (2012), analyzing factors for different results of banks' performances during financial crisis, indicate that there is no correlation between differences in regulations across countries and the performances.

Some financial institutions have come under unrelenting pressure to reduce assets to comply with the Basel III strengthened capital requirement, whilst those in countries with delayed implementation have some extra time to comply with the requirement. This could give rise to unfairness for financial institutions to be put on a competitively disadvantageous position in a country where strengthened capital requirement has been implemented in accordance with the internationally agreed time schedule.

It might be necessary to adjust the timing of its implementation to the economic environment of individual countries, since the Mechanical implementation of an internationally agreed rule could possibly have a negative effect on the financial system stability,

Agreements on International rules and the implementation timeline are originally determined taking factors into account, such as impacts on the participating countries economy, competitive fairness and etc. Its implementation should proceed in accordance with the international agreement, at least in principle.

If, for any reason, an individual country found it impractical to meet such a timeline, the country should explain the reasons for not doing so at international-level meetings. Its delayed implementation has to be approved by other member countries..

Ensuring the effectiveness of internationally agreed rules is essential to maintain confidence in the agreement process of the G20 and the FSB. Each individual country should respect the roles played by the G20 and the FSB in addressing the latest financial crisis and should work to avoid the confusion that could be caused by a loss in confidence.

3.. Full consideration should be given with regard to the segmentation of the financial markets by regulations of individual countries, as well as to the impacts arising from the cross-border applications of domestic regulations. Regulatory Supervision should be flexible, as needed, in order to fully achieve the objective of internationally agreed rules.

Given that the difference in levels of maturity of both the financial system, safety nets, financial institutions' business models and risk profiles across individual countries, in order to ensure the effectiveness of regulations in each country, national regulatory and supervisory authorities need to be given a certain level of discretion, rather than implementing a set of one-size-fits-all regulations.

A home-protective rule that focuses on enhancing resilience of the domestic financial system, such as the ring-fence rules, could aggravate transparency and predictability of the global regulatory environment, opening a way to the segmentation of the finance sector. A cross-border application of individual countries' regulation could have a negative impact on the economy and markets in other countries. These movements go against the trend of globalization of the economy.

As regulations of individual countries have impacts not only on the home country's financial system but also on a global basis, the G20 should take an initiative to avoid the partial-optimization by individual countries' regulations and their cross-border applications. Individual countries also should avoid the risk of segmentation of the financial market by their domestic regulations and cross-border applications.

To avoid any negative effects, regulatory supervision has to be flexible to address actual conditions. At Japan's financial crisis in 1990s, the regulatory authority took a flexible approach to cope with a fall in banks' capital ratio due to a plunge in unrealized gain on stocks. Japan's regulatory authority allowed the inclusion of subordinated bonds, unrealized gains on real estate, deferred tax assets and other items into Tier II capital, within a discretionary range of internationally agreed rules. Such a flexible approach contributed to mitigating adverse impacts of international financial regulations on the financial system. It is recommended that individual countries should seek a proper balance between regulation and supervision, noting Japan's past initiatives as a reference.

4. New financial supervision to cope with financial crisis should seek a simpler regulatory framework that takes advantage of the monitoring function of the market, which is internationally consistent and, at the same time, capable of addressing differences in the financial systems across individual countries.

The capital adequacy rule is one of the measures used to ensure the soundness of banking operations by maintaining a certain level of capital. The overall framework, however, has become very complicated as it has revised each time a financial crisis occurred. Regulatory tightening focuses only on banks could accelerate money outflows from banks toward the shadow banking activities. Consequently, from a long-term perspective, the capital requirement framework could impede the stability and efficiency of the entire financial system.

The primary purpose of financial regulations is to enhance the soundness and stability of financial institutions. Preferably, at the same time, it should be an incentive compatible. In other words, they should give an incentive to financial institutions to comply with regulations as a means to "increase their stock prices." It is also critical to use simple measures, which can be easily monitored by ordinary market participants, not only by experts who are knowledgeable on the details of financial markets. Potential options for simplifying banking supervision could include the market observable measures such as the interest rate on subordinated debt[6] and the market-valued capital

[6] Calomiris (1997 and 1999) suggests an idea that interest rate caps should be set on subordinated debts issued by banks, and that banks which are not capable of issuing subordinated debts with such interest rate caps should not be

ratio, which is the value obtained by dividing the total market value of capital of a financial institution by its total assets.[7]

allowed to roll over their debts, letting gradually reduce the outstanding subordinated debt.

[7] Shimizu (2013)

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Summary of Past Recommendations

In relation to these recommendations, the Research Group issued the recommendations "Post-Financial Crisis Regulatory Reform Proposals - From Global "One-Size-Fits-All" to Locally-Specific Regulations -" and "Prudence Policy for Stable Economic Growth" in 2010 and 2011, respectively.

The summary of these recommendations is as described below.

Research Group on the Financial System (2010),"Post-Financial Crisis Regulatory Reform Proposals - From Global "One-Size-Fits-All" to Locally-Specific Regulations -," *Research Group on the Financial System Report* (44)

Recommendation 1: Transform uniform global capital adequacy regulations to more locally-specific regulations

- ○ Banks have different business models. Regulators should avoid uniform global regulations to raise capital adequacy standards. Excessively-stringent capital adequacy rules regarding quality and quantity could obstruct the financial system's flow of funds intermediary functions during economic downturns and even amplify business fluctuations. Thus, this is not a proper reform.
- ○ Capital adequacy rules should be designed in each country by financial system supervisory officials to account for country-specific differences. Globally-uniform capital regulations risk a recurrence of financial problems, so regulations should be designed to address differences in financial structures, legal and tax systems, and business practices.
- ○ The issue that should receive highest priority is reviewing the US and European supervisory systems. Existing regulations and supervisory systems should have been adequate, but they were unable to prevent the excessive risk undertaking and inappropriate activities under operating guidelines.

Recommendation 2: Addressing the issue of "Too Big to Fail"

- ○ Stricter capital regulations would not solve the "Too Big to Fail" or "Too Interconnected to Fail" problems; rather, they could aggravate present conditions.
- ○ Fixing the "Too Big to Fail" issue would require a series of steady regulatory reforms addressing the issues that have recently come to light. For example, some reforms could include: 1) a framework that would allow a failed bank to withdraw from the markets without the entire financial system collapsing; or 2) a regulatory/supervisory system that ensures that a big market share of a financial product is not concentrated into one specific financial institution or that limits the size of that financial institution to a manageable size.

Recommendation 3: Ensure adequate liquidity standards

- ○ Regarding adequate liquidity standards, core deposits are more effective for fundraising than market-based methods. Liquidity regulations should consider the scale of stable deposit fundraising.

Macro-prudential policies

- ○ An appropriate combination of macro-prudential and micro-prudential policies should be considered. Regulators in each country who are responsible to fix the problem in their own country must make continuous efforts independently to ensure the soundness of the financial system without relying on intervention from other countries.
- ○ The ongoing efforts of international regulators on regulatory reforms to prevent future financial crisis with only globally-uniform regulations should be redirected towards more diversified regulatory rules with higher emphasis on local specificities.

Lessons from Japan's experience

- ○ Japan can offer valuable lessons in managing a financial crisis. Regulatory officials around the world are advised to study the experiences of Japan, which are summarized in this proposal.

Research Group on the Financial System (2011), "Prudence Policy for Stable Economic Growth," ***Research Group on the Financial System Report*** **(46).**

1. Achieve both prudence and stable economic growth by regulations that reflect the unique characteristics of individual countries.

- ○ Ensuring resilience in the financial sector is the foundation for sound economic growth. Regulations should avoid an impediment to economic growth.
- ○ A level playing field is only possible when there is a correct acknowledgment of varieties in jurisdictions, including their economic circumstances.
  "One-size-fits-all" regulations that ignore such differences will have substantial adverse side-effects.
- ○ The actual imposition of regulations on SIFIs should be left to the discretion of the authorities in each country who are best situated to understand the business conditions of individual financial institutions and the economic conditions of their jurisdiction.

2. The emphasis should be on macro-prudence perspectives and supervision suited to the circumstances of the financial markets of individual jurisdictions.

○ Rebuilding systems and organizations should be firstly prioritized so that the financial sector supervision is once again effective in the U.S. and the Europe.

○ A proper balance between macro and micro perspectives is critical to ensure multifaceted supervision of the entire scope of increasingly sophisticated and complex financial systems.

○ Supervision should contribute to financial institution portfolios that are more resilient to domestic and international macroeconomic environments.

○ Authorities in different jurisdictions should further strengthen their cooperation and coordination to improve both depth and speed of their response.

3. Regulation should be reviewed and reassessed to better address pro-cyclicality problem.

○ Strengthening the health of the financial sector will require voluntary efforts on the part of financial institutions themselves, but also the reliable implementation of policies to encourage stable economic growth by individual governments.

○ The imposition of multiple rules and regulations produces cumulative effects that could lead to unintended adverse economic consequences.

○ If regulations are found to have unintended economic consequences, stable economic growth must be prioritized. Candid reviews and reassessments of regulations in order to better address pro-cyclicality problem are critical.