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Research Report

Improving Capital Regulations on Financial Institutions to Reflect Group-wide Risks

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Improving Capital Regulations on Financial Institutions to Reflect Group-wide Risks

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* Based on Rhee, Keyoung, *A Study on Minimum Capital Requirement Regulation on Financial Conglomerates in Korea*, Policy Study 2016-10, Korea Development Institute, 2016 (in Korean).

Summary

- **The group-wide risks associated with business group affiliation must be reflected in capital regulations that assess the soundness of financial institutions.**
 - When financial institutions hold shares with the intent to maintain control over a business group, the insolvency of one affiliate could rapidly spread throughout the entire group due to difficulties in disposing of the respective shares.
 - If such risks are not reflected in capital regulations, the capital adequacy of financial institutions [in groups] against losses may be assessed inaccurately.

- **It was found that the current capital regulations on insurance and securities companies do not reflect the group-wide risks posed by affiliates' investments in shares.**
 - The risks may be underestimated for capital regulations on insurance companies as the companies' investments in non-consolidated affiliates are regarded as general stock investments.
 - As for capital regulations on securities companies, capital adequacy may be incorrectly assessed due to the deduction of the whole investment in affiliates from their capital.

1

Introduction

- **Group-wide risks should be reflected in prudential regulations to ensure accurate assessment and management of the risks to financial institutions in conglomerates (or groups).**
 - Group-wide risks refer to the risks generated from the various financial relationships – including investment-related – formed between affiliates within a group, which can be composed of financial and non-financial companies.
 - A prime example is the Tongyang Group. In 2013, the group's controlling shareholder exerted undue influence over the financial affiliates, thereby raising governance issues and in turn, posing operational risks to those affiliates.
 - If the soundness of affiliates, in whom financial institutions have invested, deteriorates, the corresponding insolvency problem can rapidly spread across the group to financial institutions as it is more difficult to withdraw investments from affiliates than from external entities.
 - Recently in Korea, there have been discussions over the introduction of a group-wide financial supervision system that will expand the scope of prudential supervision to the entire group.
 - If a large business group consisting of a number of affiliates generates a high risk of insolvency, it will be massive in scale and could substantially damage financial stability. Thus, a regulatory system dealing with group-wide risks is needed.

2

Guidelines on Reflecting Group-wide Risks in Capital Regulations

■ This study examines Korea's prudential regulations on a group-wide basis by focusing on capital regulations, and recommends directions for improvement.

- Capital regulations are a major policy instrument used by the financial supervisory authorities to set minimum capital requirements that act as a buffer for financial institutions against unexpected losses and to oblige them to manage an amount of eligible capital above the minimum requirement.
- This study analyzes problems that occur when the risks posed by financial institutions' investment in and relationships with affiliates are not adequately reflected in capital regulations. And based on the findings, this study attempts to recommend directions for improvement.

■ Risks posed by financial institutions' investments in affiliates need to be reflected in capital adequacy regulations.

- Holding stocks or other securities issued by affiliates could pose higher counterparty risks than holding securities issued by non-affiliates.
 - There may be incentive for a controlling shareholder of a group to abuse the funding ability of financial affiliates to control other affiliates by purchasing their shares. With the purpose of controlling affiliates it is difficult for financial affiliates to dispose of their stakes in affiliates in financial trouble.
- Underestimation of these group-wide risks posed by stakeholder relationships may result in a distorted assessment of the adequacy of financial institutions' capital.
 - (Distortion in Quantity of Capital) If company A invests in the shares of company B to turn the latter into a subsidiary, the same capital is double counted in both companies' balance sheets.
 - (Distortion in Quality of Capital) If company A raises funds by issuing subordinated bonds recognized as eligible capital but with low loss-absorbing capacity and invests the funds in the shares of company B, the same investment is marked as subordinated debt in company A's balance sheet, but as common stocks with high loss-absorbing capacity in company B's.

■ To address such distortions, the Joint Forum¹⁾ (1999), an international consultative body on group-wide supervision, recommends using the building block²⁾ and total deduction³⁾ methods for capital regulations.

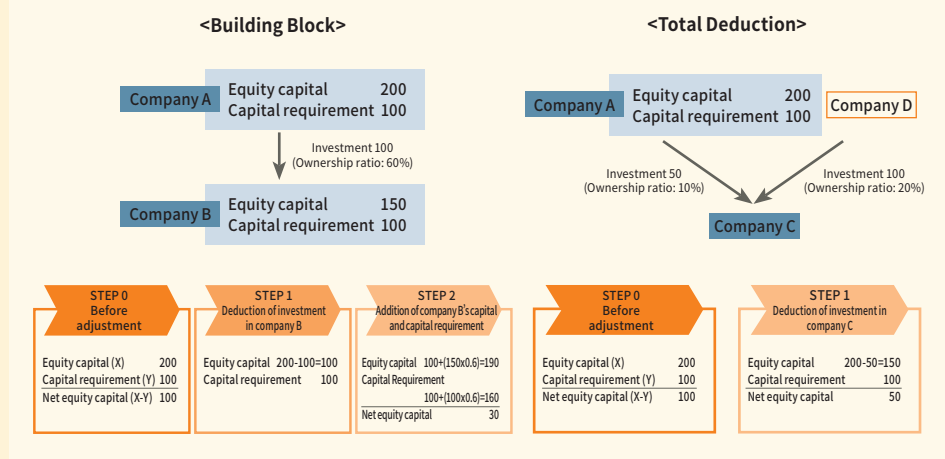
- (Building-block Method) In cases wherein a financial institution controls an affiliate, the building block method assesses the financial institution's capital adequacy by consolidating these two entities into a single regulated entity.
 - As seen in the left panel in Figure 1, the building block method deducts company A's investment [100] from its equity capital of 200 in order to resolve the double-gearing problem of company A's investment in the shares of company B.
 - Next, company B's eligible capital and minimum required capital, multiplied by company A's share-holding ratio, are respectively added to company A's eligible capital and minimum required capital. The results are then used to assess company A's capital adequacy against its minimum requirement.
 - By consolidating the controller and the controlled into a single entity for capital regulations, this method addresses the issue of distortion of capital in quantity; deducting the former's investment in the latter from its capital.
 - Moreover, if a subsidiary's capital falls short of its minimum requirement, the method deducts the shortage from the parent company's capital. This aligns the accountability of the prudential management of lower-level affiliates with the

1 In response to the conglomeration of financial institutions, the Joint Forum was created by BCBS (banking), IOSCO (securities), and IAIS (insurance) in 1996 to discuss directions for policy making and pending issues in consideration of the necessity for an integrated supervisory system.

2 The Joint Forum (1999) named it the building-block prudential approach.

3 The Joint Forum (1999) named it the total deduction method.

[Figure 1] Examples of Capital Adjustment Methods to Address Capital Distortion



group-wide governance structure.

- Note that if company A issues subordinated bonds, the ratio of subordinated debt to group-wide capital increases more when using this method than otherwise. This means that the building-block method [partially] resolves the issue of distortion of capital in quality.⁴⁾
- (Total Deduction Method) The Joint Forum recommends deducting financial institutions' total share in affiliates from its capital when the building block method is not applicable.
 - The right panel in Figure 1 illustrates a case where companies A and D jointly control company C but company A cannot control company C alone.
 - In the cases like the above, the Joint Forum recommends deducting the value of shares of company C held by company A from its capital.
 - The Joint Forum also recommends deducting financial institutions' total share in affiliates it controls from its capital when the affiliates are not subject to capital regulations (as sole establishments) due to difficulties in assessing their capital adequacy against the capital requirement.
 - The total deduction method is a way to measure the risks associated with affiliation from the most conservative perspective when it is difficult to consolidate such risks with regulated financial institutions via the building-block method.

3

Status and Issues of Korea's Capital Regulations

- In Korea, some insurance and securities companies are affiliates of conglomerates through horizontal or vertical affiliation, necessitating a group-wide prudential supervision system.

- Financial holding groups comprised of a holding company and subsidiaries are under group-wide prudential supervision.
- However, although some large business groups subject to cross-shareholding restrictions have large shares of financial assets out of the total assets within the groups, they are not subject to group-wide prudential supervision (Kim, 2016; Rhee, 2016).
- It is possible that the capital regulations on insurance and securities companies in business groups do not sufficiently reflect the group-wide risks.

⁴ In the left panel of [Figure 1], if company A issues subordinated bonds to finance its investment of 100 in company B, the ratio of subordinated debt to group-wide capital calculated by the building block method is 190:100. The ratio increases to 290:100 when the method is not used.

<Table 1> Business Groups Subject to Cross-shareholding Restrictions with a High Share of Financial Assets

	Kyobo	Hankook Investments	Mirae Asset	Nonghyup	Dongbu	Taekwang	Hanwha	Hyundai	Samsung	Hyundai Motor Company
Total Asset (A)	92,816	36,931	62,375	367,908	49,676	38,196	162,936	31,341	645,186	257,014
Financial (B)	92,405	36,754	61,351	359,835	46,553	33,066	118,955	22,667	340,715	54,988
Non-financial	411	177	1,024	8,073	3,123	5,130	43,981	8,674	304,471	202,026
Rate (B/A)	99.6	99.5	98.4	97.8	93.7	86.6	73.0	72.3	52.8	21.4
Insurance	Kyobo Life Insurance, Kyobo Life Planet		Mirae Asset Life Insurance		Dongbu Life Insurance Dongbu Fire Insurance	Heungkuk Life Insurance Heungkuk Fire & Marine Insurance	Hanwha Life Insurance Hanwha General Insurance		Samsung Life Insurance Samsung Fire & Marine Insurance	Hyundai Life Insurance
Securities	Kyobo Securities	Korea Investment & Securities	Mirae Asset Securities		Dongbu Securities	Heungkuk Securities	Hanwha Investment & Securities		Samsung Securities	Hyundai Motor Investment & Securities

Note: 1) As of April 2016.

2) Unit of total asset: billion won, Unit of rate: %.

Source: The Online Provision of Enterprises Information System (OPNI) (<http://groupopni.ftc.go.kr/ogroup/index.jsp>, Last sign-in date: Nov. 22, 2016).

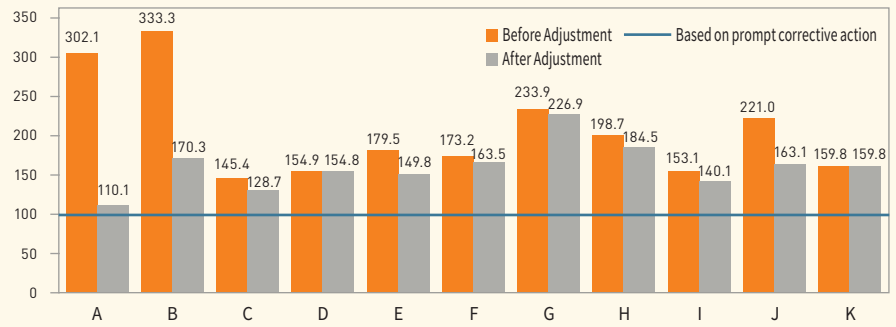
■ **It is found that the group-wide risks posed by affiliate relationships are reflected in the capital regulations on banks and financial holding companies as recommended by the Joint Forum.**

- Banks are subject to capital requirements under Basel III that reflect the recommendations of the Joint Forum.
 - Banks controlling affiliates that are subject to capital regulations as sole establishments are assessed for group-wide capital adequacy using the building block method.
 - For others, the total deduction method is applied.
- For financial holding groups, the parent company becomes the subject of the assessment via the building block method.
 - The total deduction method is applied to the affiliates who are not subject to capital regulations.

■ **In the capital regulations on insurance companies, it was found that certain criteria to measure the capital adequacy of investments in affiliates do not take into account the group-wide risks, which may lead to an overestimation of their capital adequacy.**

- The building block technique is used to assess the group-wide capital adequacy of affiliates who are subject to consolidation to an insurance company as the largest controlling entity.
- The total deduction method is adopted for consolidated subsidiaries who are not subject to capital regulations.
- However, affiliates not solely controlled by an insurance company are not subject to any adjustments, and thus, there is the risk of an underestimation of the group-wide risks.
 - Under the current rules, the risks associated with insurance companies' holdings of shares in affiliates are assessed using the same criteria as that used to assess the risks of conventional investment in common equities.
 - After an adjustment of these risks according to the corresponding criteria under

[Figure 2] Results of Adjustments in Insurance Companies' Capital Adequacy Ratio



Note: 1) See Rhee, Keeyoung (2016) for detailed methods on capital adjustment.
 2) Analysis was based on financial statements released at end-2016.

Basel III, it was found that the capital adequacy ratios of some insurance companies fell significantly (see Figure 2).

- This result suggests that the capital adequacy of insurance companies may be overestimated because the current capital regulations only partially reflect the group-wide risks associated with investing in affiliates under the sole control of the insurance companies.

■ **In the capital regulation on securities companies, it was found that there may be a distortion in evaluating the capital adequacy as their investments in affiliates are fully deducted from their capital, regardless of the type of investment.**

- Under the current regulations (as of December 2014), securities companies' total investment in affiliates is fully deducted from their capital, no matter what type of investment is made.
 - This rule may be based on the premise that it is difficult for securities companies to actively collect debt from affiliates, in whom they invest, even if the affiliates become financially unsound or insolvent.
- However, this rule may distort capital adequacy as the building block method is not applied to consolidated subsidiaries controlled by securities companies.
 - Deducting securities companies' investment in consolidated subsidiaries may underestimate their capacity to use the net capital surplus of the subsidiaries as a buffer in contingencies.
 - Therefore, the current rule unnecessarily obligates securities companies to maintain a possibly excessive amount of capital corresponding to the risks created by holding subsidiaries.
 - Another problem is that securities companies—as parent companies—are not responsible for managing their subsidiaries' capital adequacy, even if their subsidiaries' capital falls short of the minimum capital requirement.

<Table 2> Comparison of Capital Adjustment Methods in Terms of Investments in Affiliates by Financial Business Type

Affiliate		Joint Forum (1999)	Banks	Insurance Companies	Securities Firms
Capital Regulation	Investment				
Applicable	Controlled	Building block	Building block	Building block	Total deduction
	Not Controlled	Total deduction	Total deduction	No adjustment	
Not Applicable	Controlled	Total deduction	Total deduction	Total deduction	
	Not Controlled	Total deduction	Total deduction	No adjustment	

4

Future Improvements to and Considerations for Capital Regulations

- **Revisions of sectorial capital regulations must be made to reflect the group-wide risks posed by financial institutions' holdings of shares in affiliates.**
 - For insurance companies, the total deduction technique should be adopted for their investments in affiliates when the building block method is not applicable.
 - At present, there are no adjustment rules over such investments.
 - Capital regulations on securities companies also need to be revised to manage the capital adequacy of both securities companies and their subsidiaries in a consolidated manner by adopting the building block method.
 - The current rule does not adjust the group-wide risks associated with companies' control of subsidiaries.

- **If group-wide risks are adequately reflected in the capital regulations, they may be utilized to improve the related regulations on the separation of industrial capital and financial capital.**
 - The separation of industrial capital and financial capital is motivated by the perception that the funding capacity of financial institutions from the markets may be appropriated to affiliates, leading to an inefficient allocation of capital. Thus, the corresponding separation regulations and group-wide prudential supervision share similar motives.
 - If, among others, the rule prohibiting financial institutions from holding assets in non-financial companies is substituted with capital adequacy regulations, the misappropriation problem will be resolved to some extent as financial institutions will become obligated to maintain capital in proportion to the level of the group-wide risks posed by affiliation relationship in groups (Santos, 1999; Rhee, 2016).

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