Risk and Returns of Financial-Industrial Interactions: The Korean Experience *

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I. Introduction

The Korean banking sector received a good deal of negative coverage from international financial markets and presses in the wake of the recent financial crisis. An unmitigated spread of business failures of non-bank industries to the banking sector in 1997 gave the impression that there has never been a mechanism in place to block such a contagion in Korea. Despite such appearances, Korea has some very elaborate legal barriers as well as regulations that separate non-financial businesses from banks. These legal barriers were supposedly installed to minimize risks associated with having an arrangement that would not separate the two types of businesses. The most notable was the emphasis put on restricting the size of majority share holdings of bank shares. However, following the breakout of the recent crisis, general consensus is that the system failed.

At the beginning of 1997, the demise of Hanbo Steel caused a series of failures in businesses belonging to the Hanbo group. A few more well publicized business failures followed, subsequently dealing a near fatal blow to several Korean banks. Two large banks became technically insolvent, requiring the government to directly intervene with equity participation on a substantial scale to ensure their solvency. Thus, it is not surprising that many in Korea agree that the regulatory regime failed to prevent an unmitigated propagation of non-business sectors' trouble to banks.

A misfortune for Korea could indeed be a valuable opportunity for others if the correct lesson is learnt from the experience. The key channel for the transmission of business failures to a bank is the latter's exposure to the former in terms of either

concentrated lending or concentrated share holdings. In Korea's case, it is the history of concentrated lending that lies underneath difficulties currently being experienced by banks. Going deeper during the rapid growth period of the past three decades, the issue at the root of it all was the policy not allowing banks and other financial firms to fully develop as more autonomous profit-oriented business units.

Despite a strong emphasis on limiting risk exposure of the banking sector to other industries via restriction on ownership, too little attention was paid to the risk exposure through the lending channel. A close relationship between the two sectors could arise from a bank's concentrated lending to an industrial firm. Effectively, a bank can lose its ability to exercise discretionary control over its lending to a firm when the bank's lending exposure to the firm is too large. It is a typical application of the "too big to fail" doctrine.

It turns out that this list of problems has been well known for some time. Active intervention by government in most facets of economic life has been the norm from the 1960s and has not changed in any substantive way since then. Consequently, governmental guidance still had the final word in key decisions of private banks in such areas as asset allocation and selection of banks' presidents. This governmental intervention was not an entirely bad thing as far as bank managers were concerned since it more or less excused bank executives from managerial responsibilities. Attendant moral hazard problems were compounded by an implicit governmental guarantee of not only deposits but also against a failure by a bank. As expected, banks continued to lend mainly based on the 'too big to fail' doctrine.

At the same time, governmental supervision of banks continued to be lax despite numerous codes restricting levels of lending concentration. These conditions led to the concentration of bank lending to large businesses. Despite such hubris, circumstances surrounding lending concentration have not substantially changed thus far.

Such experiences seem to suggest that perhaps a diligent overall prudential regulation is more important than establishing legal codes and rules to dictate the separation of the financial and industrial sectors.

II. General Background and Korea's Case

There is a trade-off between having and not having a strict barrier separating commerce and banks just as there is one between banks and non-bank financial businesses. In general, a strict separation allows tight control over the contagion of business failure from one to the other. For example, a bank affiliated with a steel producer would be threatened if the steel company fails due to a rapid fall in demand for steel, which has little to do with the bank's operation. However, at the same time, a close relationship affords a synergy effect between the two businesses. When there is an on-going interlocking relationship, the bank might have insider knowledge that the steel company is ordinarily very efficiently run and it is experiencing only a temporary cash flow problem. The bank could then extend short-term financing to see the steel company through a temporary difficulty. This could make the steel company more profitable as other steel companies without links with a bank would have failed, thus

opening up more business opportunities. On balance the interlocking relationship could offer a higher return for the bank's investment over time.[1]

As is well known, not many countries allow non-financial business firms to control a bank. However, Germany and Japan allow banks to enjoy significant equity participation in non-financial businesses. On the other hand, a growing number of countries are removing barriers between banks and non-bank financial businesses. Even in the U.S., where the Glass-Steagall Act put up a wall between banks and non-bank financial businesses, as a direct outcome of the 1929 Crash, the movement to disengage the barrier is gradually gaining momentum. The recently announced plan to merge Citicorp and Traveler's group is the most prominent showcase of such developments. It is probably fair to say that the jury is still out on whether one form dominates the other in terms of a higher profitability for the given level of risk. Both the potential benefits associated with economies of both scale and scope need to be balanced against the increase in risk by the crossover.[2] [3]

In the case of Korea, a strict restriction against the involvement of non-financial capital in the banking industry has been put into place. At the same time banks

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[1] For a discussion of potential problems of allowing commerce-banking cross-over, see Corrigan (1986).

[2] Litan (1987) offers a comprehensive overview of potential costs and benefits of removing the separating wall between the two types of financial businesses.

[3] Jwa (1995) offers some empirical evidence in Korea's case regarding the potential scope of the economies of scope, and the economies of scale for various combinations of the three groups. Basically, Jwa found more room of obtaining positive synergy effect among financial firms and less for commerce-bank combination.

can own shares of non-bank businesses. However, this option has been used strictly for investment purposes only and has not led to an interlocking relationship (a la keiretsu) as in Japan. In addition, Korea has followed the Japanese system of allowing banks to own security firms as subsidiaries.

II.A. Mobilization of banks during the rapid economic growth

In reality, however, the prudential regulation perspective played a conspicuously low key in formulating policies regarding the bank-commerce relationship in Korea, and the utmost emphasis was laid on how best to finance rapid industrialization. A clear priority has been placed on rapid industrialization since mid-1960s. The task for economic policy makers since then has been how to devise and organize national economy to achieve rapid growth.

Commercial banks were the main depository of domestic financial resources. Thus, assuming control of banks came naturally as a necessary step to launch and finance economic development plans. In the early 1960s, the Korean government took over control of commercial banks from private owners. Going further, the government established a number of special banks to absorb as much of the savings as possible and also to facilitate exports and industrialization.[4] The overriding reason for a bank's

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[4] Farmers Cooperation and the Industrial Bank for Small and Medium Industries were established in 1961 to focus on rural area and funding of small and medium businesses, respectively. Kookmin Bank was established in 1963 to deal with the general public as well as with small businesses. In 1967 the Housing Bank and Korea Exchange Bank were set up to deal

existence was to channel domestic savings to targeted industries as effectively as possible. Many restrictions were imposed on the asset management of banks to ensure that funds went to projects deemed necessary by the government for the nation's industrialization effort. Simply put, the Korean government took a very active role not only in determining the extent of relationship between banks and non-bank industries, but also in running banks as the de facto and de jure majority share-holder.

II.B. Privatization of banks and restriction on ownership

Over the past two decades, steps have been taken to increase the autonomy of banks, including the selling off of government majority share-holdings in all major commercial banks and the privatization of special banks. With the sales of banks shares previously held by the government, the controversial issue that emerged was whether or not to allow non-bank industrial firms to own a bank. The controversy arose because of the dominant positions chaebol groups (the potential buyers of bank) already enjoyed in various industries in Korea. To a large extent, the development strategy undertaken by Korea gave birth to the chaebol. The government encouraged the development of new industries that require economies of scale and in doing so, the Korean government relied on existing businesses to start a new industrial sector rather than actively encouraging new start-up companies. Such a policy drive was supported by easy credit

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with housing finance and international trade, respectively. The Korea Development Bank, already in existence since the early 1950s focused on long-term large investment projects.

and other inducements and gradually led to vertical as well as horizontal growth of interrelated businesses. However, concurrent to these developments, is a growing concern about the concentration of economic powers and a rising anti-chaebol sentiment.

Two factors might explain why chaebols sought to acquire banks. First, due to rapid industrialization and overall growth in the size of a typical industrial project, businesses were in chronic need of funds. In the absence of indirect financing sources such as bond and equity markets, banks were the main conduit of funds. Raising funds through banks became even more attractive because the government tightly controlled interest rates on both deposits and lending at below market rates. Second, there also was a high barrier-to-entry in the banking sector as until the early 1980s, no new bank licenses had been issued for nearly two decades. This was most visible in the 1970s when the Korean government actively engaged in the promotion of heavy and chemical industries. Such a high barrier to entry must have permitted apparent economic rents to be had by entering into the banking sector. For example, all banks had access to cheap credit provided by the Bank of Korea designated for various industrial sectors.

In the end, general opinion against the concentration of economic powers prevailed. Consequently, a strict limit has been put on the proportion of the single largest share-holding (4% in the case of major commercial banks, starting in 1995). The key justification of this restriction was to prevent a potential abuse of a bank by its owner (i.e., largest share-holder) as a private financing arm of a chaebol business group. That is, the bank might exclusively lend to a small number of businesses that had close ties to themselves. Presumably, this concern stems from the prudential regulation

perspective of not exposing a bank to a single, potentially fatal risk due to lending concentration.[5]

Restriction against concentration of lending is commonplace internationally. As shown in Table 1, which compares the restriction against lending concentration to a single borrower for selected countries, Korea also has had similar restrictions. However, the most notable difference is the fact Korea has not had a restriction on lending concentration to multiple borrowers belonging to the same group until very recently. This deficiency appears to have had serious ramifications on lending concentration in Korea.

II.C. Lending concentration

In fact, current lending practice and the legal status of individual chaebol firms have already exposed banks to such risks. The main problem is that the de facto chaebol business group is not legally recognized. Due to inter-connected ownership as well as the business relationship, it is more appropriate to view firms belonging to a chaebol group as one economic unit. The case of the Hanbo group is a good example. Other businesses legally unrelated to the Hanbo Steel (the initial firm to fail) all experienced difficulties and went bankrupt along with the steel mill. Subsequently, a few major Korean banks came dangerously close to insolvency due to their exposure to those

[5] In addition, a potential breach of confidential business information is another concern. A chaebol-affiliated bank might leak key business information of a client firm to a competitor who is affiliated with the same chaebol.

firms.[6]

It turns out that individual firms belonging to a chaebol are legally regarded as independent entities, completely separate from each other. Thus, for example, one firm can offer a credit guarantee for another firm's borrowing from a bank. Cross-guarantee among firms belonging to the same chaebol group has became a common practice. Although this has been a legal practice accepted by Korean banks, it makes little sense in economic terms.[7]

The cross-debt guarantee is one source of lending concentration in Korea. Another is the fact that banks place heavy reliance on collateral. Table 2 compares the proportion of banks loans made based on collateral as well as credit guarantee to the

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[6] The Korea First Bank with the capital of 1.2 trillion won at the end of 1996 had the largest exposure to the Hanbo as its main bank. The total amount of loan to the Hanbo group businesses that failed in early 1997 was 1.8 trillion won. The series of business failures that followed the Hanbo's case in the remainder of 1997 put more banks in dire straits. The Korean government had to step in to prevent insolvency at the Seoul Bank as well as the Korea First Bank.

[7] One immediate problem resulted from such a reality is the so called "cross-guarantee" system. Lending to firm A belonging to chaebol group X, banks demanded a third party credit guarantee in lieu with collateral. Typically firm B, which also belongs to the same group X offered such a guarantee. Since firms A and B are legally independent entities, this guarantee was legitimate as far as the banks were concerned. However, economic reality is that since both firms A and B belong to the same group X, such a credit guarantee is meaningless against the potential failure of firm A. The failure of firm A will most likely involve overall business difficulties of group X and the affiliated firm B. This was indeed the case for the Hanbo group wich failed in early 1997.

Related to this, it might make more sense to face reality by allowing a holding company that would make ownership structure more explicit. This would have the beneficial effect of establishing transparent managerial accountabilities.

total bank credit for Korea, Japan and the U.S. during recent period. A relatively heavy reliance on collateral is highly apparent in Korea. Large businesses tended to have more tangible collateral and could thus obtain bank credit relatively easily. Perhaps related to this, banks generally perceived large borrowers to be too big to fail. Both banks and large businesses thus exhibited behavior reflecting "moral hazard".

Another effort on the part of the government to induce financial deepening was to allow a holding company system in financial businesses with a bank ownership ceiling of 12%. This was aimed at encouraging the formation and growth of capital specializing in financial businesses. However, as yet there have been no takers.

The government also introduced a main bank system in the late 1980s, modeled after that of Japan. The idea behind this was to foster a close relationship between a large business group and a bank so that the designated bank could take on a monitoring role on the strength of this close relationship. By requiring a chaebol firm to maintain close links with its designated bank, this system was also designed to discourage chaebols borrowing from many different banks.

Again, the recent bankruptcies of chaebols belonging to the 30-largest category and their immediate impact on the Korean banking sector revealed the ineffectiveness of all these measures taken to prevent the concentration of bank lending. The two banks most severely affected by these failures were in technical default and only a massive government emergency intervention saved them from failing. In short, all the past measures taken to limit banks risk exposure to non-bank industries failed to limit the spread of adverse shocks from non-bank industries to banks.

II.D. Imbalance in the size of banks and industrial businesses

Another related point is that a bank's lending exposure to firms might get "too big" just because a typical industrial project is so much larger than a typical bank's capital. For example 69 banks were included on the 1997 list of the fortune 500 largest firms in terms of asset size. Banking industry took the top ranking by far when those 500 firms were grouped according to industry groups. Banking dwarfed the runner-up industry (motor vehicles and parts); in terms of the number of firms 69 to 27, and in terms of asset size, about 10 to 1. Out of 13 Korean firms that made the list, there were two insurance companies but no banks.

According to *The Banker's* 1996 list of 1000 banks, shown in the July 1997 issue, the Korea Exchange Bank topped the list of Korean banks, ranking 140th in terms of assets. The Cho hung ranked 162nd. On the other hand, 6 Korean industrial and trade firms made the top 150 largest firm list, which includes all industries, compiled by the Fortune in the same year.

Table 3 shows comparisons of revenues of the ten largest non-financial businesses and asset size of 10 largest banks in 1996. This comparison is likely to reveal a global benchmark regarding the relative size of non-financial businesses and banks. Table 4 shows similar information for Korea. For the top 5 businesses and banks of Table 3, asset size is about four times as large as revenue. As a group, the total assets of the 10 largest banks in the world makes up about 3.5 times the total revenue of the 10 largest non-financial businesses. In comparison, the ratio between the Korean top five non-financial businesses and banks averages at about 2.0 and as a group the ratio is

about 2.4.[8]

So it is very likely that the average size of business projects in Korea will proportionately take up a bigger slice of a banks' capital. This means that just due to the disparity in size, a bank in Korea faces more risk per lending compared to foreign banks in advanced economies.

III. Lessons and Policy Implications

Several important policy implications emerged from Korea's recent experience. One, the imposing of heavy restrictions on bank ownership is no substitute for on-going diligent prudential regulations in terms of controlling systemic risks. A corollary to this may be that it would be more productive to focus on installing an effective regulatory regime than to expend energy on deciding who can or can not own a bank.

Two, efforts to enhance a banks' monitoring function require more than merely designating a main bank to a specific group of borrowers. In particular, the designated main banks for the businesses that went into bankruptcy in 1997 failed either to monitor or to enforce disciplinary actions against their key borrowers when the borrowing firm overextended. In the absence of proper economic incentives and autonomous authority to make key lending decisions, establishing a main bank system becomes meaningless.

Three, policy makers need to think long and hard about artificially assigning a

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[8] This number for the global big players will likely change in the direction of large banks as a result of the recent series of mergers between large U.S. banks.

nation's banking sector to the subordinate role of supporting industrialization at any cost. Such a policy could easily lead to mismatched growth in financial and non-financial sectors. Since typical industrial policy emphasizes the non-financial sector at the expense of financial industries (as in Korea), a noticeable imbalance between the two sectors could easily develop. For example, the manufacturing sector accounted for about 27% of GDP in 1994, whereas banking and financial services accounted for 17%. Though we do not know the golden ratio, these figures stand out in comparison to those of the other "Asian tigers". The two sectors accounted for about 28% (manufacturing) and 27% (banking and financial services) in Singapore in the same year. In Hong Kong, each sector accounted for 9% and 27% in the same year.

The practice of credit-rationing by the government has had a debilitating long-term effect by stunting a banker's inclination or capability to make lending decisions based on strictly commercial considerations. In this regard, it is would be better if banks were allowed to determine the composition of their asset holdings. For example, lending to the consumption sector should not necessarily be viewed as "wasteful". Under the kind of circumstances which have prevailed in Korea, consumer lending may be the only channel through which bank officers can accumulate experience to assess the creditworthiness of borrowers.

In conclusion, it is widely understood that banks and other financial institutions perform useful functions not only in terms of providing finances (i.e., lending) to different projects but also in providing a service as a filter to weed out (or monitor) economically unsound projects. As a major lender, banks in Korea have purportedly

served for the goal of aiding rapid industrialization. However, Korean banks have not played any significant “monitor” role.

As a part of efforts to address the problems in the Korean banking section, we need to change the banking laws to incorporate the following three items: One, bank managers should be held accountable by the board of directors all of whom in turn are elected by stock-holders. Some relaxation of the current restriction on individual share-holding ceilings might facilitate this. Two, all restrictions limiting entry to the banking sector as well as mergers and acquisitions should be removed for both domestic and foreign participants. Competition will naturally lead to a consolidation. Three, remove various restrictions on the details of asset compositions of commercial banks to allow more autonomous management. Regulations should narrowly focus on controlling excessive risk taking by banks.

It appears that many ASEAN countries have also adopted a strategy similar to that followed by Korea in their efforts to achieve rapid industrialization. Hence, a weak financial sector has been common in many countries that have experienced a financial crisis. Going beyond the banking sector, enhancing the monitoring function of financial industry in general need to be focused on in the future. Of course, effective prudential regulation of financial industry has to be a prerequisite to considering any changes in the formal arrangement between financial and non-financial industries.

References

Corrigan, Gerald E., 1986, "Financial Market Structure: A Long View," 72 *Annual Report*, Federal Reserve Bank of New York.

Jwa, Sung-hee, 1995, *Endogenous Financial System*, (in Korean) Dasan Publication, Seoul, Korea.

___________, 1996, "Globalization and New Industrial Organization: Implications for Structural Adjustment Policies," Regionalism vs. Multilateral Trade Arrangement, NBER-East Asia Seminar on Economics, vol.6, Takatoshi Ito and Anne O. Krueger (eds.), National Bureau of Economic Research, The University of Chicago Press.

Litan, Robert E., What Should Banks Do?, The Brookings Institution, Washington, D.C.,1987.

Statistics on Bank Management, 1997, the Bank of Korea.

"The Global 500 List," *Fortune* (August 1997).

Choi, Sung-no, 1997, *The Korean Big Business Groups for 1997*, (in Korean), Center for Free Enterprise, Seoul Korea.

"The Top 1000 Banks," *The Banker* (July 1997).

Table 1: International comparison of limits on lending concentration (as of 1996)*

	Japan	U.S.	U. K.	France	Germany	Korea
Single borrower	30	25	25	40 (25 starting in 1999)	50 (25 starting in 1999)	15 (lending) 30 (credit guarantee)
Multiple borrowers, single group	40	25	25	40 (25 starting in 1999)	50 (25 starting in 1999)	

*The numbers are the percentage of the lending to a banks' own capital (the Bank of Korea).

Table 2: Comparison of Collateral based lending (Korea, Japan, and the U.S.)*

		1991	1992	1993	1994	1995	1996
Korea	Collateral	50.7	50.2	51.5	49.8	47.8	42.8
	Guarantee	7.9	9.5	9.0	7.0	8.0	7.8
	Total	58.6	59.7	60.5	56.8	55.8	50.6
Japan		38.3	38.2	37.8	n.a.	n.a.	n.a.
U.S.		38.6	39.1	37.1	33.7	n.a.	n.a.

*The numbers are the percentage of collateral based lending to the total (source: the Bank of Korea).

Table 3. Ten Largest Non-financial Businesses and 10 Largest Banks in 1996

10 largest Non-financial businesses	Revenues (in $ mil.)	10 largest banks	Assets (in $ mil.)
General Motors	168,369	Bank of Tokyo-Mitsubishi	647,781
Ford Motor	146,991	Deutsche Bank	569,906
Mitsui	144,943	Credit Agricole	477,336
Mitsubishi	140,204	Sumitomo Bank	460,375
Itochu	135,542	Industrial & Commerce Bank of China	437,392
Royal Dutch/Shell	128,175	Dai-Ichi Kangyo Bank	433,860
Marubeni	124,027	Fuji Bank	432,738
Exxon	119,434	Sanwa Bank	427,438
Sumitomo	119,281	Sakura Bank	422,769
Toyota Motor	108,702	HSBC Holdings	401,686
Total	1,335,668	Total	4,711,281

*The non-financial businesses were taken from the Fortune's 1997 list of Global 500 largest corporations and the banks were taken from The Banker's 1997 top 1000 bank list (shown in July 1997 issue).

Table 4. Korea's Ten Largest Non-financial Businesses and 10 Largest Banks in 1996

10 largest Non-financial businesses	Revenues	10 largest Banks	Assets
Samsung	24,131	Korea Exchange	44,594
Hyundai	20,552	Chohung	40,260
Daewoo	19,012	Korea First	39,437
Samsung Electronic	15,784	Hanil	39,120
LG	14,041	Bank of Commerce	37,388
Hyundai Motor	11,489	Kookmin	35,997
Yukong	8,322	Seoul	31,039
LG Electronic	7,502	Shinhan	30,774
Ssangyong	7,371	Hana	14,936
Kia	6,607	Boram	12,885
Total	134,811	Total	326,430

Numbers in billion won.