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Korea's Credit Card Market: Structure & Reforms*

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Abstract

Despite the extraordinary asset growth of domestic credit card businesses during the last 10 years, the nine credit card brands in Korea have not been able to sufficiently capitalize on their economies of scale as a result of the competition in the credit card market. Member merchants are also seeing growing complexity in managing their fees payable after having to enter into separate merchant contracts with each brand. All the while the brands themselves forgo considerable costs in promoting and managing their brands and relationships. Such market structure problems can be alleviated through brand integration, but current conditions do not lend themselves well for adopting the necessary measures to make it so. But in planning for the medium and long term, related policies should start to be moved along to raise market structure efficiency and to keep with global trends and developments. In the immediate future, greater competition in the distribution market can be spurred and would likely result among the credit card brands were a merchant member pooling system be introduced where a merchant member could do with but one contract with one brand.

* *Opinions expressed are those of the author and do not necessarily reflect the official positions of the Korea Institute of Finance.*

Korea's credit card industry falls behind those of other countries in terms of cost efficiencies despite having grown rapidly during the last decade.

The credit card industry in Korea lags behind those of other countries in terms of cost efficiencies in spite of its rapid growth during the last 10 years. In the US and most other countries, the consolidation and integration of the many independently-operated credit card brands into Visa and MasterCard, for example, have allowed benefits to accrue from lower costs and economies of scale, because the various systems that promote credit card holders and merchant members separately have come to share them. In contrast, because all nine of the domestic credit card brands conduct separate promotions for card holders and merchant members, it keeps them from benefiting from low cost and economies of scale.

This paper will review the structural problems in Korea's credit card market, which is composed of many brands, and propose possible ways to improve them.

Credit Card System: Architectures

The credit card system in Korea is largely characterized by either the closed 3-party or open 4-party structure, decided by the card issuer and the merchant member.

Depending on whether the card issuer and the acquirer are identical, the credit card system in Korea is largely characterized by two definitive schemes, the closed 3-party scheme and the open 4-party scheme. The 3 parties in the closed schemed are the card holder, the merchant member, and the credit card company. In this scheme, the credit card company, as the owner of the brand, expands their card holder and merchant member base and builds a credit card network system for credit card payment between them. Credit card companies with a closed 3-party scheme in other countries include American Express and Diners Club, and all other credit card companies in Korea except for BC Card.

In contrast, the open scheme consists of the card holder, the merchant member, card issuer, the (bank) acquirer, and the credit card brand. Credit card brands such as Visa, MasterCard, and China UnionPay collect card issuers who issue their cards, but also acquirers who will accept their cards for product and service payments. The brands also build networks as to allow their card holders use their cards at the merchant members. Under the open scheme, the banks can be with licensing agreements with the card issuer or acquirer.

Credit cards began to be used as a store card that could be used at the issuing stores, but after the 1950s when Diners Club, American Express, Visa, MasterCard, and Discover were introduced, credit cards began to be used at large merchant members. Diners Club and American Express came on the scene in 1950 and 1958 with high merchant member acceptance in hotels, restaurants, and tourism agencies. On the contrary, Visa and MasterCard began as bank–launched credit cards in 1958 and 1966, and entered licensing agreements with card issuing and acquiring banks that could not make large investments needed to build credit card networks. Ever since, credit card brands have been proliferating across borders and are used widely as many credit card companies became licensees of Visa and MasterCard and others as either acquirers or issuers.

Structure & Market Size of Korea's Credit Card Industry

Credit cards in Korea began to be introduced in 1969 in the form of department store cards, while credit cards able to be used at other merchant members were introduced by banks in 1978. Credit cards able to be used at other merchants were first issued in 1978 by Korea Exchange Bank as Visa cards, then Kookmin Bank issued KB cards in 1980, and five commercial banks jointly established BC Car in 1982. Corporate groups such as Samsung and LG managed to enter the card industry through acquiring existing companies, in spite of government guidelines against the establishment of new card companies by such groups.

In terms of the structural characteristics of Korea's credit card industry, while both the 3-party and 4-party schemes exist, unlike most other countries, the former is far more prevalent. Most independent card companies, excepting BC Card, have adopted 3-party schemes, in which the issuing bank and merchant bank are the same entity. BC Card, unlike other domestic credit card companies, does not issue credit cards but instead forms the necessary payment network, manages merchant members, and performs as the acquiring agent on behalf of their member banks. BC Card can therefore be said to have adopted a model akin to the open scheme.

By 2010, credit card usage in Korea has also grown to be the 5th largest in the world.

Korea's credit card market grew rapidly following the 1998 currency crisis, buoyed by regulated policies designed to stimulate consumption and raise transparency for tax purposes. The 42 million credit cards that had been issued by card companies at the end of 1998 had, by the end of 2010, swelled to 120 million cards or 4.7 cards for every economically active person. The number of merchant members of credit card companies also multiplied from 4.7 million in 1998 to 18 million as of end-2010, bringing to around 2 million the absolute number of merchants accepting credit cards when multiple contracts are factored in. And it is likely that the 2 million merchant stores required to accept credit cards represent all merchant members since those not accepting credit cards are known to implicitly invite investigation for tax evasion.

The growth of the credit card industry for these and other reasons has also led to a big jump in credit card usage. The KRW63.6 trillion credit card charged at end-1998 increased to KRW493.8 trillion, which is 57% of total private consumption by end-2010. On a global basis, Korea's USD330.7 billion in credit card charges as of end-2009 was fifth overall behind only the US with USD3.39 trillion, USD1.49 trillion in China, USD657.8 billion in the UK, and USD403.0 billion in Canada.

Structural Inefficiencies in Korea's Credit Card Market

Market structure efficiencies in Korea's credit card industry are low compared to other countries even though it has had exceptional external growth in terms of the number of card holders, number of merchant members, and credit card spending.

> Korea's credit card market has not been able to achieve economies of scale despite the market grow.

First of all, Korea's credit card market is failing to sufficiently achieve economies of scale despite the rapid growth in the market. In Korea's market, there are has nine credit card brands, 21 credit card companies, including them and other companies which do not have their own brands and use other brands. And as mentioned earlier, the defining characteristic of domestic credit card brands are that they independently promote and recruit card holders and merchant members while also forming the needed network to make the credit card transactions possible.

The credit card industry in general can achieve progressively higher economies of scale in line with the growth of the market through large IT systems needed to support and facilitate transactions. But Korea's market, despite its impressive growth, are failing to realize the benefits that come from economies of scale because all nine credit card brands manage transactions separately. In most countries, including the US, two cards, Visa and MasterCard, deal with more than 90% of all credit card transactions whereas the CPU (China UnionPay) treats practically all.

> Merchant members in Korea could face problems of growing complexity in managing their receipts as they have must contract separately with all 9 credit card companies.

Furthermore, because merchant members in Korea must all sign contracts with each of the nine credit card brands, they may face problems managing all of the payments from the many credit cards. Currently, most merchant members in Korea are under separate and distinct contracts with all of the nine credit card brands to prevent customer loss. Even though merchant members can sign up with all of the brands at once through VAN, which authorizes and menages merchant members on behalf of credit companies, the merchant members must receive receipt payments separately from each of the nine brands. But because the deposit period and merchant fees are different among the credit card companies, the more contracts make checking and managing payment from card companies more complicated. What is more, any discrepancy in the payment settlement process can cause inconveniencies since the merchant member has no other recourse but to contact each card brand separately.

To address such problems, a merchant member pooling system could settle all transactions even though a merchant member is a member of only one credit card brand. But in this case, the merchant member must forgo the inconvenience of delayed settlement for the other credit card brands and submitting sales receipts of non-member credit card directly to the member credit card.

On the other hand, even under the merchant member pooling system, credit card brands must pay considerable amounts to VAN for merchant member-related promotions since they must sign member contract with all members. And the amount that credit card brands would have to pay VAN in fees should be large considering that about 500,000 merchant members close and open annually.

Alternatively, to save on promotion fees, credit card companies can use the merchant member pooling system to settle the card transaction with non-member merchants. But this would call for brand card fees to be paid to the other credit card brand for dealing with it. It is a result of this that most of the credit card brands currently contract separately with all their merchant members.

The Dichotomy of the World's Credit Card Market

In developed credit card markets like the US and UK, such international credit cards are being used as Visa, MasterCard, American Express, Diners Club, CUP, and JCB of Japan. And excepting for a small number of countries such as Korea, China, and Japan, in the vast majority of countries only Visa and MasterCard are used. These two credit cards accounted for 66.01% and 25.18% of the world's credit card market as of 2010. Of the other international brands, CPU accounted for 4.03% of the world's market, American Express 3.91%, JCB 0.75%, and Diners Club 0.13%.

Of the international credit card brands, Visa and MasterCard dominate because they form credit card networks only and do not deal directly with card members. These two credit cards were launched by banks around the late 1950s, but they have grown to international brands today by signing licensing agreements with other banks. Credit card companies around the world use the credit card networks offered by Visa and MasterCard, and focus on either issuing credit cards or acquiring receipts from merchant members. In most countries, the number of brands that form networks are small but competition in the issuing and acquiring markets are growing between many credit card companies.

The market share of Visa and MasterCard are high because they form the necessary networks that make transactions possible.

An advantage of an open credit card scheme such as this is that the merchant member pooling system allows credit card companies to cut costs on card holder and merchant member promotions besides capitalizing on economies of scale through receipt settlements done by the two brands, Visa and MasterCard.

Possible Improvement Measures

Many of the structural problems in Korea's credit card market can be addressed if the nine brands consolidate into one or two and an open scheme is adopted by turning current credit card companies into issuers. The integrated credit card brands could then also make international inroads by signing up merchant stores in areas with large overseas Korean communities or with many Korean visitors. They also have the option of entering into strategic alliances with CPU, JCB, and other small international credit card brands to expand their usage in their areas. Cost efficiencies could then be realized as the international networks of Visa and MasterCard could be bypassed, lowering user fees for domestic card holders in other countries.

But under the current conditions where each domestic brand has their own merchant members and card holders, it would be hard for card brands to become issuers by giving up their vested rights. In fact, credit card brands are proliferating after a number of banks recently spun off their credit card divisions with the increased competition in the credit card market.

To raise market efficiency credit card brands that form networks need to be integrated while increasing competition between the companies.

To raise the level of structural efficiency in the credit card market, what is needed is the integration of credit card brands that form networks and increasing the level of competition between credit card companies. To have the market structure develop along these lines, related policies should be urged to participate in the long-term plan. For the immediate future, the merchant member pooling system needs to be more finely tuned to increase efficiencies from brand integration. Merchant members can currently accept non-member credit card brands, but such receipts must be submitted directly to the member credit card brand and the delays for settlement can become protracted. Once these problems are resolved, competition between the credit card brands is expected to intensify as merchant members come to contract with only the credit card brand that offers the most competitive fee structure.

Focus & Brief

October 24-28

■ **Policy Issue in Focus:** Correlation Between Korean and Overseas Equity Markets

■ **News Briefs:**
- Korea's Q3 GDP Grows at 3.4 % YOY
- Expanded Swap Lines Between Central Banks of Korea and China Effective Immediately
- Growth in Household Savings-Type Deposits Lowest in 3 Years

■ **Market Indicators:** October 24-28

□ Policy Issue in Focus: Correlation Between Korean and Overseas Equity Markets

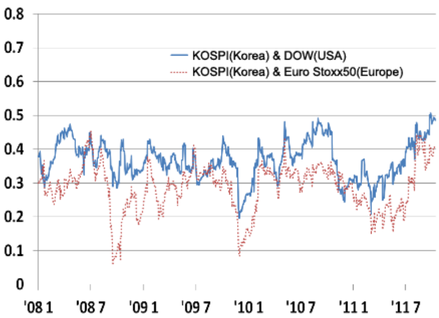
By Young Do Kim, *Research Fellow*

■ **Current Status:** Ever since the euro zone's fiscal crisis exploded equity markets around the world have reacted on news with punctuated upward and downward movements. And from H2 this year, domestic and overseas share markets have been reacting in lock step on news related to the fiscal crisis, including those on the increased possibility of a Greek default. And although the degree of reaction differs by country this suggests the world equity markets move in sync as one as a result of globalization.

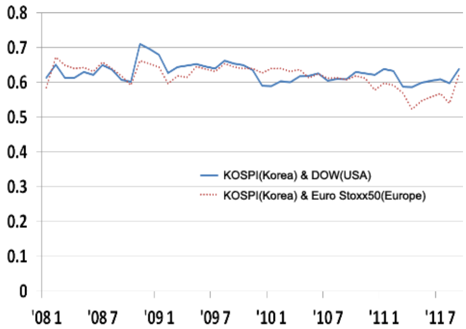
■ Based on post-2008 daily data supports correlation between the KOSPI and the major indices in select countries has continued to increase from after Q2 2011, leading to inferences that the world equtiy markets react the same way on the same news, such as those on the euro zone. Under the Dynamic Conditional Correlation MultiVariable GARCH approach, which calculates correlation based on mutually exclusive relationships, the correlation for profitability between Korean and US equity markets fell to 0.2 earlier this year on the KOSPI's rally before rising to 0.5 thereafter, the highest since 2008. Likewise, the correlation for the rate of return between the KOSPI and the Euro Stoxx 50 was lower than those for the KOSPI–US markets, although it has been increasing from signs of a similar pattern emerging more recently. This suggests that it is the US equity markets continuing to exert influence over other markets more than those idiosyncrasies of the Korean market.

■ Nonetheless, a review of monthly data shows that correlation was higher than those of daily data and that it was increasing after having fallen subsequent to 2009. The correlation of KOSPI's monthly rate of return since 2008 against either those of the US or European markets was and continues to hover between the relatively high levels of 0.5 and 0.7. Correlation between the KOSPI and euro zone share markets fell on a monthly basis since 2009 but just rising in the most recent month.

<Diagram 1>
Daily Share Market Correlation



<Diagram 2>
Monthly Market Correlation



■ Conclusion: Even though the daily correlation between overseas equity markets and the KOSPI has been rising recently, a review of monthly data showed long–term correlation was not high, supporting that the impact of overseas causes were more limited on the direction of the KOSPI than some have been suggested. When some extraneous periods were excluded, the daily correlation between the KOSPI and US equity markets was high. However, in long-term correlation, such as on a monthly basis, regional differences were not as poignant because due to the correlation from globalization.

☐ Policy & Industry News Briefs: Oct. 24-28

■ Korea's Q3 GDP Grows at 3.4 % YOY

A six consecutive month fall in construction investment and a sharp drop in private consumption and facility investment caused Korea's real Q3 GDP to increase by 3.4% from a year earlier, the BOK said. While this was the second month in a row that it has grown at a rate above 3% it was also the lowest growth rate since Q3 2009. Exports and imports also grew by only 9.4% and 6.4% during the same period, significantly below the 13% and 9.3% in Q2. With the fiscal crisis in Europe and the slowdown in the US expected to enter the main phase from next year Korea's economic growth trend is widely expected to flatten.

■ Expanded Swap Lines Between Central Banks of Korea and China Effective Immediately

On October 26, the BOK and the People's Bank of China (PBC) increased their previous KRWCNY swap agreement from CNY180 billion to CNY360 billion or approximately USD56.0 billion. The previous agreement is nullified as a result. The new agreement will expire in 3 years or October 25, 2014 with the option to extend. Whether or not the swap currency will subsequently be substituted as a reserve currency will be reviewed at a later date as would its amount. Korea's usable FX reserves has consequently increased to approximately USD430 billion, including its FX reserves of USD303.4 billion plus the USD70.0 billion swap agreement it has with Japan and the USD56.0 billion it now has with China.

■ Growth in Household Savings-Type Deposits Lowest in 3 Years

According to the BOK, Korean households' savings-type deposits was KRW388.9 trillion as of end-August, up only 7.9% from a year earlier. The pace of growth was the slowest since September 2008. The sharp rise in household debt and the prolonged low interest rate environment were cited for the fall. The share of households in banks' total savings-type deposits also fell to 46.6% in August, the lowest it has been since November 2010. The annual interest rate for new savings-type deposits in August was 3.76%, down 0.03%p from a month earlier.

□ Market Indicators: Oct. 24-28

		2010 AVG.	Sept AVG.	Oct. 24	Oct. 25	Oct. 26	Oct. 27	Oct. 28
Interest Rates (%)	Call Rate (1d)	1.97	3.26	3.24	3.27	3.26	3.25	-
	CD Rate (100 mil. won)	2.63	3.58	3.57	3.57	3.57	3.57	3.57
	Industrial Finance Bond	3.38	3.59	3.67	3.67	3.66	3.67	3.68
	Corporate Bonds (3yr, unsecured·AA-)	5.81	3.77	4.36	4.36	4.33	4.36	4.38
	Korean Treasurys (3yr)	4.04	3.44	3.53	3.53	3.50	3.53	3.54
	Nat'l. Housing Bonds (5yr)	5.10	4.23	3.96	3.96	3.93	3.96	3.98
KOSPI & Trade Value (KRW 100 mil.)	KOSPI (1January1980 = 100)	1,764.99	1,709.95	1,898.32	1,888.65	1,894.31	1,922.04	1,929.48
	Trading Value	56,077	64,103	67,668	60,942	56,183	80,433	100,156
	Investment Balance	136,858	194,598	210,649	201,874	206,145	202,874	-
	Foreigner Net Purchases	859	-640	1,780	3,496	-959	1,714	4,805
FX Rates	Won/Dollar	1,276.18	1,122.47	1,134.40	1,129.00	1,132.30	1,115.20	1,104.90
	Won/Yen	1,363.83	1,462.34	1,487.35	1,483.38	1,491.63	1,467.18	1,455.92
	Won/Euro	1,773.65	1,543.91	1,576.59	1,573.04	1,584.09	1,580.68	1,777.56

Translator & Editor: Dennis Kim