



Securities Lending Market and Its Policy Implications

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[Summary]

I . Securities Lending

- Securities lending takes place when a borrower borrows necessary securities from a lender with paying the commission charge and returns within the contracted time.
 - Investors use the securities lending to make strategic plans on their investment and protect from default on payment.
 - In S. Korea, securities lending is applied under Loan for Consumption (Article 598, Civil Law).
 - In general, securities lending is heavily related to a borrower's short selling, and can be used as a risk-free arbitrage trading.

II . Background

- As securities markets grow internationally, securities lending has been used to reduce the risk of default on payment.
 - The market has developed with the various schemes to improve the supply side of a beneficial holder of securities to act as a provider, and for demand side, it is closely related to the development of derivatives market.

III . Market Structure & International Market

1. Market Structure

- Securities lending involves lenders, borrowers, intermediaries, and many other participants to cover the position from short selling.
- Various trade routes contribute to difference in trading methods & commission charge, and securities lending is managed differently in the market according to their collateral.

2. International Market

A. United States

- In the United States, the participants' roles in the securities lending market are mixed together.
- The regulations are based on the contract made between both parties, but there are some specific regulations to ensure the validity on the trade.
- Regulation T of FRB (Federal Reserve Board) regulates the duty for providing collateral. Banks have to comply with the regulations of FRB & OCC (Office Comptroller Currency), and broker-dealers have to comply with Securities Exchange Act, Consumer Protection Law, Self-Regulatory Act, etc.

B. United Kingdom

- CREST (securities depository institution) provides service for calculating collateral in securities lending.
 - Unlike other countries (ex. US, 95% dollar to value ratio), the UK has high securities to value ratio; which is 70%.

C. Japan

- In 1980s Japanese corporations had been publishing convertible bonds and equity linked warrants to encourage demand in the arbitrage trading and growth in their securities lending market. However, due to the recent economic recession, the market growth has been slowing down.
 - There are two different types. One is to use the intermediaries (institutional market) and the other is to follow the US/UK style of securities lending (regular market).

3. Market Volume

- Market volume is exceptionally large in the US.
 - In the US, the volume of the stock lending was \$ 336.9 billion, which was 19 times of the UK and 13 times of Japan. Also, the US bond lending was 9 times of the UK.
 - In terms of collateral, the US uses cash collateralized lending while the UK uses non-cash collateralized lending. Japan uses both in about same proportion.

- In the US & UK, bonds were more widely used than stocks in the securities lending.
- Due to the recovery from the global financial crisis, ease on the regulations promoted the growth in the securities lending market. However, with the fiscal crisis in European countries, the UK securities lending market is still in the recession.

IV. Domestic Market

1. Institutions

- In August 1996, our domestic securities lending began through KSD (Korea Securities Depository).
- To resolve the problems on asymmetric information, the supervising authorities has been working on the public announcement.
 - However, under the Laws on Capital Market, KFIA (Korea Financial Investment Association) discloses the final data of the intermediaries, which makes inconvenient to find detailed information.
- Other important regulations under the Laws on Capital Market can be summarized as follows.
 - When using the intermediaries, “securities or cash” has to be provided from a borrower as a collateral.
 - When directly trading, a contract is made on the each trade.
 - In domestic, securities lending is limited to the listed securities.

2. Market Environment

- Unlike the US, our market participants are clearly divided into lenders, borrowers, and intermediaries.
 - Lenders include foreign investors, pension fund, asset managers, insurance companies, banks, securities companies, etc. Borrowers include foreign investors, securities companies, etc.
 - Intermediaries manage securities and collateral, which include KSD, KSFC (Korea Securities Finance Corporation), and some of the securities companies.
 - The method of trading is different between KSD and KSFC.

A. Stock Lending

- The global financial crisis brought sudden decrease in the balance of stock lending due to the prohibition of short selling and redemption from foreign investors. However, the balance has been increasing thereafter.
 - Domestic stock lending is usually made through KSD, and foreign investors take most part in both lending & borrowing.
 - Recently, the proportion of the local residents in stock lending is increasing in both lending & borrowing.
- Much part of the stocks in foreign investors' borrowings is related to the covered short selling.
 - While foreign investors widely use the arbitrage and/or covered short selling (hedge purpose), domestic institutions are passive on using the covered short selling due to its regulations.

B. Bond Lending

- The balance of domestic bond lending keeps increasing.
 - Unlike the stock lending, bond lending is usually made through KSFC, and local residents take most part in both lending & borrowing.
- In domestic market, foreign investors' bond lending is usually made among themselves.
 - Also, weak intention to invest in Gensaki trading is one of the main reasons for foreign investors' poor participation in the bond lending.

V. Policy

- In general, securities lending encourages liquidity in the market and gives an opportunity to borrowers & lenders to raise their profits, and eventually promotes growth in our capital market.

1. Infrastructure

- Unifying the institutions on the intermediaries.
 - Unification can reduce the gap between the bid-ask spread and simplify the trading methods.
 - Examination on the efficiency in the market, validity of prices & bank practices, and the supply of liquidity is necessary.
 - If the unification is thought to be ineffective, it would be necessary to simplify & unify from each institution to reduce the complexity on the trading.

2. US-Style Cash Lending

- US-style cash lending promotes financial institutions to make profits and expands the demand in the short-term financial market.
 - Demand in borrowing needs to be promoted through adopting the hedge fund, and domestic banks have to develop new business models such as the US custodian bank.
 - Promoting joint brokerage system to efficiently manage the collateral & securities.
 - On the review for upgrading the limit on the foreign investors' securities lending (currently ₩50 billion).

3. Other Institutions

- Review on the expansion of demand & supply side which includes participation of private investors, expansion in the demand base, ease on the regulations for short selling, etc.
- Adopt automatic lending service to protect from default on payment and other plans regarding claims on purchase.
 - Also, on the review for developing new index to understand the status of the domestic lending market.

4. Regulations on Short Selling

- Securities lending is heavily related to the short selling, therefore it is necessary to vitalize the trading without getting disruption from the short selling.
- Necessary to strictly restrict the naked short selling and maintain the regulations for the up-tick rule.

I. Securities Lending

- Securities lending takes place when a borrower borrows necessary securities from a lender with paying the commission charge and returns within the contracted time.
 - Which means securities are temporarily lent to the brokers & dealer banks to have a trading support from financial institutions and earn the commission charge.
 - Lenders take the commission charge and can make risk-free profits from holding the portfolio. Borrowers receive the securities and can make strategic investment plans on derivatives, short selling, etc.
 - In the market, securities lending brings market liquidity and protects from default on payment & market risk.
- Investors use the securities lending to make strategic plans on their investment and protect from default on payment.
 - In the past, securities lending had been used as to protect from default on payment.
 - Recently, securities lending is widely used in derivatives, ETF, RP transaction, etc.
- Borrowers pay the commission charge and the borrowed securities can be re-lent or sold.
 - The commission charge is divided into the brokerage fee and the lending fee.

- The rate of the brokerage fee is decided from the intermediaries but the rate of the lending fee changes as the demand in the securities lending changes.
- In S. Korea, securities lending is applied under Loan for Consumption (Article 598, Civil Law), and a lender has to transfer the ownership so that a borrower can use the securities.
 - Therefore, other than the economic rights, voting right & preemptive right are also transferred.
 - However, a lender receives the securities within the contracted time and has to have the intention to keep holding the rights on the securities.
 - As a result, securities lending is under the condition of receiving “substitute payment” if the securities are not lent to the borrower.
 - Period of lending is not limited.
- In domestic, securities lending is limited to the listed securities.
- Securities lending requires collateral to protect from default and minimize the credit risk.
 - Most of the problems rise from the borrowers’ side which include redemption of securities, providing additional collateral, returning profits, paying lending fees, etc.
 - In securities lending, collateral is divided into the physical collateral and the personal collateral.*
 - * When using the cash as a collateral, it will be the same context for borrowing cash and providing securities as a collateral from lenders’ side. In this case, the securities lending becomes the same as the RP transaction.

- Usually, the US and Japan use cash, and the UK uses securities for their collateral.
- In general, securities lending is heavily related to a borrower's short selling, and can be used as a risk-free arbitrage trading.
 - Short selling is divided into the covered short selling and the naked short selling, and the securities lending is usually used in the covered short selling.*
 - * In our country, private investors can make short selling through stock lending, and lenders set limits on the period and the maximum amount.
 - Risk-free arbitrage trading includes foreign DR, CB, BW, and some of the arbitrage trading (ex. stocks, spot & futures market).

II. Background

- As securities markets grow internationally, securities lending has been used to reduce the risk of default on payment.
 - Our securities lending market has been growing with the US securities market, and adopting the automatic lending service (1970s) made possible to make strategic plans on the arbitrage trading.
 - The UK lending market grew up with developing the securities market since the “big bang” in 1980s, and became the center for the world’s leading securities lending market.
- The market has developed with the various schemes to improve the supply side of a beneficial holder of securities to act as a provider.
 - In the early stage, insurance companies, asset managers, and foundation fund were in charge of the supply, however, due to adopting Employee Retirement Income Security Act, 1974, pension fund was allowed to participate.
 - Growth of the US securities companies and custodian banks* fostered the securities lending among other countries.
 - * Custodian bank is in charge of managing cash & securities, and provides different services to its customers.
 - Due to the loss from rising the US short-term interest rate, a new guideline was made to manage the risks, laws, reinvestment, etc.

- In demand side, securities lending is closely related to the development of short selling and derivatives market.
 - Borrowing securities is necessary to manage the hedge & risks in derivatives transaction.
 - Growth of index market in 1980 ~ 90s made sudden expansion of demand in securities lending.
 - In 1990s, securities lending in derivatives hedge & short selling became popular, and there were new opportunities in the arbitrage trading such as in tax and real-time transaction.
 - Investment banks has begun “global prime brokerage service” for their hedge fund customers.

- In 2000s, the securities lending market went through various changes internationally.
 - Regulations on tax became similar around the world, which reduced the opportunities on tax-related arbitrage. But, 3rd party trade became more popular.
 - In general, the securities lending was thought to be inefficient in the sense that the brokers take most of the profits. However, since the global financial crisis, some of the new measures are being promoted in the market.

III. Market Structure & International Market

1. Market Structure

- Securities lending involves many participants to cover the position from short selling.
 - Lenders include pension fund, mutual fund, hedge fund, etc.
 - Borrowers include option traders, hedge fund, asset managers, etc.
 - Intermediaries include prime brokers, custodian banks, etc.

<Figure 1> Participants & Roles in Securities Lending Market

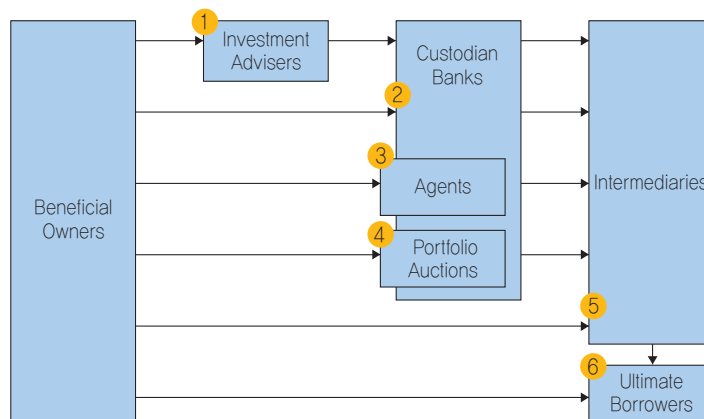
Participants	Role
Beneficial Asset Holders: Pension Plans, Mutual Funds, Hedge Funds, Retail Brokers	Lenders
Custodians & Agent Lenders	Intermediaries
Prime Brokers	
Hedge Funds, Asset Managers, Option Traders, Market Makers	Borrowers

Source: Standard & Poor's

- Various trade routes contribute to difference in trading methods & commission charge.
 - In general, custodian banks are most widely used as agent lenders, if this is the case, the lending service is provided without additional monitoring or management (#2).

- Another method is for the intermediaries* to take the risk on the principal and make the trade between both parties (#5).
- * These intermediaries include major banks, broker-dealers, investment banks, etc.
- Also, there is a way to directly lend to the borrowers (#6).

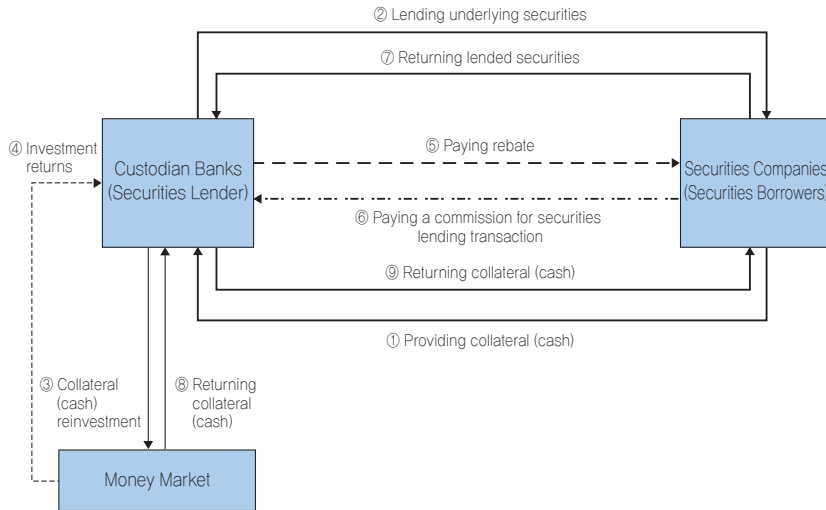
<Figure 2> Trade Routes in Securities Lending Market



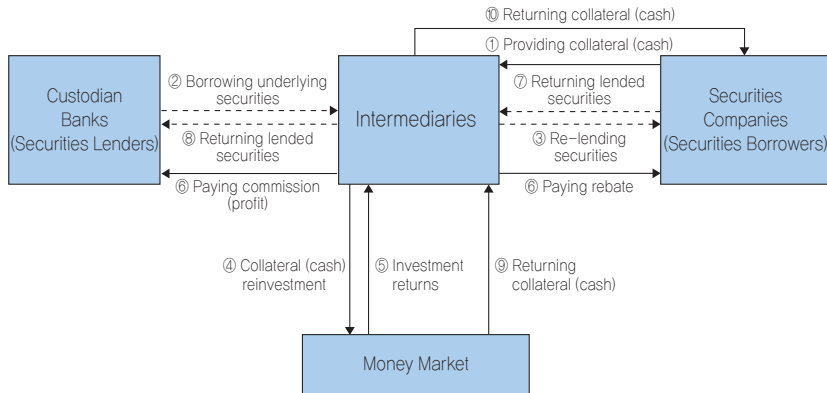
- Securities lending is managed differently in the market according to their collateral.
- According to the forms of collateral or the use of the short-term market, there is an additional opportunity to invest.

<Figure 3> Structure of Securities Lending

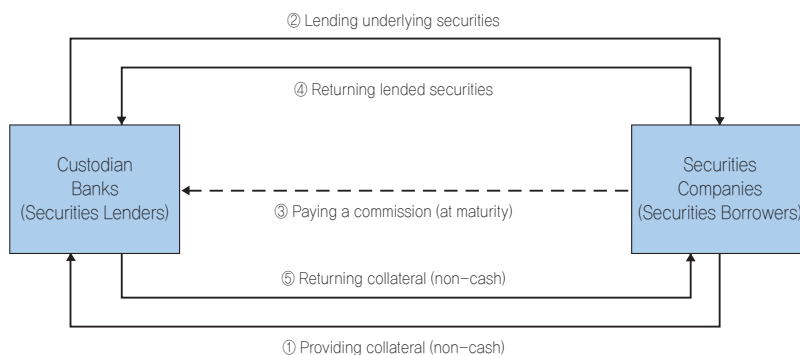
<Cash Collateralized>



<Cash Collateralized: Direct Brokerage>



<Non-cash Collateralized: Direct Brokerage>



Note: In general, securities companies provide collateral to custodian banks and transfer securities to borrowers.

2. International Market

A. United States

- In the United States, the participants' roles in the securities lending market are mixed together.
 - Intermediaries are not set to specific institutions, rather, some of the major financial institutions are taking the brokerage task in securities lending.
 - Such institutions are also in charge of managing collateral.
 - Other than the brokerage task, major broker-dealers also take the roles of lenders & borrowers.
- The regulations are based on the contract made between both parties, but there are some specific regulations to ensure the validity on the trade.

- Regulation T of FRB regulates the duty on providing collateral.
- Banks have to comply with the regulations of FRB & OCC and broker-dealers have to comply with Securities Exchange Act, Consumer Protection Law, Self-Regulatory Act, etc.

B. United Kingdom

- CREST (securities depository institution) provides service for calculating collateral in securities lending.
 - Before 1997, the securities lending had been limited to the market makers, but since then, people who want to trade in the stock lending were able to participate in the market.
 - When you put in the credit line and the type of collateral, CREST takes steps into matching.
 - Unlike other countries (ex. US, 95% dollar to value ratio), the UK has high securities to value ratio; which is 70%.

C. Japan

- In 1980s Japanese corporations had been publishing convertible bonds and equity linked warrants to encourage demand in the arbitrage trading and growth in their securities lending market.
 - However, due to the recent economic recession, the market growth has been slowing down.
- There are two different types. One is to use the intermediaries (institutional market) and the other is to follow the US/UK style of securities lending (regular market).

- JSFC (Japan Securities Finance Corporation) is in charge of the brokerage task in the institutional market.
- Securities companies proceed the brokerage task based on the holding or borrowing securities in the regular market.
- Regulations on the haircut of stock lending and the securities in Gensaki trading are stated under JSDA (Japan Securities Dealers Association). Regulations on the margin call of bond lending and the risks from securities publishing institutions are stated under JBA (Japanese Bankers Association).

<Table 1> Securities Lending in the US, UK, and Japan.

	US	UK	Japan
Feature	Competitive market.	Similar to the US competitive market, but reinforces efficiency.	Allows monopoly on a specific institution.
Participants	No limitations. Usually custodian & investment banks take the brokerage task.	No limitations. CREST is in charge of managing collateral.	JSFC takes all the brokerage task.

3. Market Volume

- Market volume is exceptionally large in the US.
 - In the US, the volume of the stock lending was \$336.9 billion, which was 19 times of the UK and 13 times of Japan.
 - Also, the US bond lending was 9 times of the UK.

- In terms of collateral, the US uses cash collateralized lending while the UK uses non-cash collateralized lending. Japan uses both in about same proportion.
- In the US & UK, bonds were more widely used than stocks in the securities lending.
 - In the US & UK, the lending ratio was much higher in bonds. Especially in the UK, the stock lending ratio was only 4.0% while the bond lending ratio was almost up to 40%.

<Table 2> Stock & Bond Lending in the US, UK, and Japan

(unit: million \$)

		Total lendable asset(A)	Cash collateralized lending(B)	Non-cash collateralized lending(C)	Total lending (D=B+C)	Lending ratio (D/A)
US	Stock (ADR included)	3,392,823	328,721	8,176	336,897	9.9%
UK	Stock	453,538	3,932	13,985	17,917	4.0%
Japan		261,718	13,718	11,585	25,303	9.7%
US	Bond	2,670,480	432,565	159,374	591,939	22.2%
UK		164,753	3,604	60,806	64,410	39.1%

Note : 1) Based on 3rd quarter, 2010.

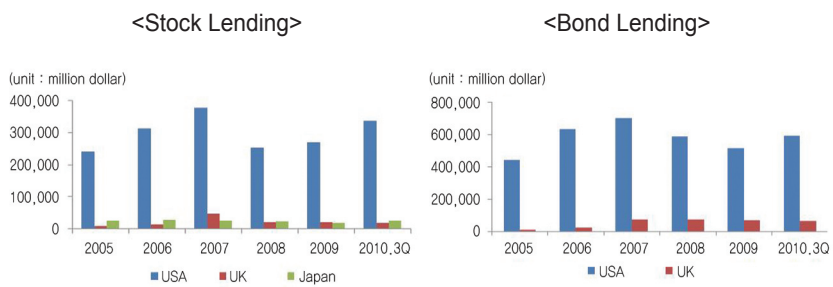
2) Lendable asset means net total asset.

Source : The Securities Lending Committee of RMA, Quarterly Aggregate Data

- The amount of stock & bond lending was seriously reduced after the global financial crisis.
 - Before the crisis, the securities lending market had been expanding with the upswing in the world's economy.
 - But, after the crisis, strict regulations made the market shrink.

- Due to the recovery from the global financial crisis, ease on the regulations promoted the growth in the securities lending market.
- However, with the fiscal crisis in European countries, the UK securities lending market is still in the recession.

<Figure 4> Securities Lending Progress in Major Countries



Note : Above data is the sum of quarterly data.

Source : The Securities Lending Committee of RMA, Quarterly Aggregate Data

IV. Domestic Market

1. Institutions

- In August 1996, our domestic securities lending began through KSD.
 - Becoming a member of OECD in 1996 and having the support from financial research institutions (ex. G-30, FIBV) stimulated the growth in our securities market.
 - Also, stock price index futures market opened in April 1996 to encourage the arbitrage trading between the spot & futures market.
 - At that time, KSD took a role for the intermediaries and KSFC & institutional investors were in charge of the guarantee on the trade.

- As stated in <Table 3>, institutions on the securities lending have been constantly reformed.
 - In November 1997, KOSDAQ stocks were included (issues for administration not included).
 - In July 1998, foreigners (non-residents) were allowed to participate in the market.
 - In September 2000, securities companies & KSFC were allowed to take the brokerage task.
 - In January 2008, amendment on the foreign exchange transaction expanded the foreigners' (non-residents) borrowing limit from ₩10 billion to ₩50 billion.

<Table 3> Institutions on the Securities Lending in S. Korea

Date	Contents
1996.8	Brokerage task (KSD) & guarantee on the trade (KSFC)
1996.9	Securities lending began on the listed stocks.
1997.11	Include KOSDAQ stocks (issues for administration not included).
1998.7	Allow foreigners (non-residents) to participate.
1998.9	Begin bond lending (depository bond, coupon bond not included).
2000.9	Allow the brokerage task on securities companies & KSFC. Abolish the rules on bonds' interest income by holding period.
2003.7	Allow partial redemption.
2006.7	Amendment on the securities lending.
2008.1	Amendment on the foreign exchange transaction.
2008.5	Include US dollar & US Treasury Bond to the collateral.
2009.2	Amendment on the securities lending according to the Laws on Capital Market.

- To resolve the problems on asymmetric information, the supervising authorities has been working on the public announcement.
 - KFIA established “integrated-disclosure system”, and publicly announces the current state of the securities lending on daily basis since October 2008.
 - KRX makes announcement on the information regarding short selling through its homepage since June 2008.

- However, under the Laws on Capital Market, KFIA discloses the final data of the intermediaries.
 - Under the current situation, the quantity is possible to be found but the type is not.
 - If you want to find the type of securities, you have to check through each company’s homepage; which is very inconvenient.

- Other important regulations under the Laws on Capital Market can be summarized as follows.
 - When using the intermediaries, “securities or cash” has to be provided from a borrower as a collateral to protect from having systemic risk (Article 182, sec. 1-4).
 - When directly trading, a contract is made on the each trade and the lender is in charge of managing the collateral.
- In domestic, securities lending is limited to the listed securities.
 - KSD includes KDR (Korea Depository Receipts) in the securities lending.
 - KSFC does not include the issues for administration, below BBB rated bonds, etc.

2. Market Structure

- Unlike the US, our market participants are clearly divided into lenders, borrowers, and intermediaries.
 - Lenders include foreign investors, pension fund, asset managers, insurance companies, banks, securities companies, etc.
 - Borrowers include foreign investors, securities companies, etc.
 - Intermediaries manage securities and collateral, which include KSD, KSFC, and some of the securities companies.
- The method of trading is different between KSD and KSFC.

- KSD classifies the securities lending into 4 categories: Issued transaction,* competitive transaction,** designated transaction,*** and adjusted transaction.****
 - * Issued transaction is to protect from default on payment (2-day maturity).
 - ** Competitive transaction is made by anonymous participants and the lending fee is decided from the competitive pricing. KSD is the collateral holder.
 - *** In designated transaction, the opponent party is designated before the transaction, and the quantity, type, lending fee, etc. are negotiated afterwards. KSD is the collateral holder.
 - **** In adjusted transaction, a borrower and lender know each other, and the quantity, type, lending fee, collateral ratio, and period are negotiated. The lender is the collateral holder.
 - Lending fee rate, collateral holder, redemption before maturity, collateral ratio, etc. are different according to the transaction.
 - For the lending fee rate, the issued & competitive transaction use the competitive pricing method while negotiation is taking place in the designated & adjusted transaction.
-
- KSFC also classifies the securities lending into 4 categories: Competitive transaction,* matched transaction,** negotiated transaction,*** and cash collateralized transaction.****
 - * Competitive transaction is made from the competitive pricing. KSFC is the collateral holder. Similar to the competitive transaction in KSD.
 - ** In matched transaction, the opponent party is designated and the lending fee is negotiated afterwards. KSFC is the collateral holder. Similar to the designated transaction in KSD.

*** In negotiated transaction, the opponent party is designated and the overall lending conditions are negotiated before the transaction. The lender is the collateral holder. Similar to the adjusted transaction in KSD.

**** In cash collateralized transaction, the lending fee rate is fixed. The lender is the collateral holder.

- For the lending fee rate, the competitive transaction uses the competitive pricing method, matched & negotiated transaction use negotiation, and cash collateralized transaction is fixed at 1%.
- As in KSD, collateral ratio, collateral holder, responsibility to perform, redemption before maturity, etc. are different according to the transaction.

<Table 4> Securities Lending by KSD & KSFC

<Korea Securities Depository>

	Issued transaction	Competitive transaction	Designated transaction	Adjusted transaction
Period	Within 3 business days	Within 6 months		
Lending fee rate	Competitive pricing		Negotiate	
Collateral holder	KSD (covers when a borrower is in default)			Lender
Redemption before maturity	Only borrowers are possible.		Both borrowers & lenders are possible. When lenders take recall, redemption should be made within 3 business days.	
Collateral ratio	105%			Negotiate
Early redemption	Possible			

<Korea Securities Finance Corporation>

	Competitive transaction	Matched transaction	Negotiated transaction	Cash collateralized transaction
Period	Within 1 year			
Lending fee rate	Competitive pricing	Negotiate		Fixed (1%)
Collateral ratio	Above 90% (different according to the credit rating)		Negotiate	Above 100%
Collateral holder	KSFC		Lender	
Responsibility to perform	KSFC		Borrower	KSFC
Redemption before maturity	Possible (if requested before 12, redemption is made within 2 business days. After 12, it will be 3 business days.)			
Redemption by installment	Possible			

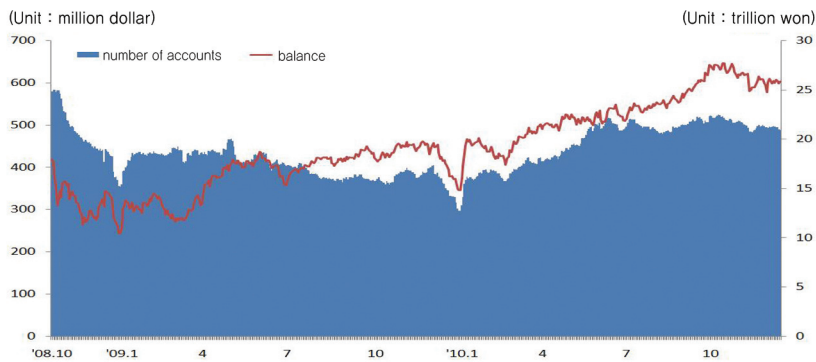
3. Market Environment

A. Stock Lending

- The global financial crisis brought sudden decrease in the balance of stock lending due to the prohibition of short selling and redemption from foreign investors.
 - Since October 2008, short selling on the stocks in KOSPI & KOSDAQ market was prohibited temporarily, but in June 2009, the prohibition (stocks in non-financial sectors) was lifted.
 - The balance of the securities lending kept increasing thereafter.

- In February 2011, the private investors invested ₩19.7 billion in the stock lending, which is less than 1% in the market.

<Figure 5> Stock Lending



Source: Korea Financial Investment Association

- Domestic stock lending is usually made through KSD.
 - In the first half of 2010, KSD took 70.0% (₩15.3 trillion) while KSFC took only 2% (₩4.5 billion) in the market.
- In domestic stock lending market, foreign investors take most part in both lending & borrowing.
 - In 2010, foreign investors took 77.9% in lending and 88.3% in borrowing.
 - High proportion of foreign investors is caused by changing the “permit system” to the “report system” on the borrowings of foreign investors (above ₩10 billion) since 2006.
 - Secondly, the regulations on the foreign exchange transaction upgraded the reporting amount from ₩10 billion to ₩50 billion.

- Lastly, the US \$ and the US government bond can be provided as a collateral.
 - Recently, the proportion of the local residents in stock lending is increasing in both lending & borrowing.
 - In lending, 12.5% in 2009 increased to 22.1% in 2010 (↑ 9.6%).
 - In borrowing, 8.5% in 2009 increased to 11.7% in 2010 (↑ 3.2%).
- Most of them are concentrated into the securities companies.

<Table 5> Lenders & Borrowers in Stock Lending

(unit: million share)

Lender				Participants	Borrower			
2009		2010			2009		2010	
Share	%	Share	%		Share	%	Share	%
1,629	87.5	1,722	78.7	Foreigner	1,702	91.5	1,927	88.1
232	12.5	466	21.3	Local resident	159	8.5	261	11.9
3	0.2	7	0.3	Bank	12	0.6	6	0.3
85	4.6	182	8.3	Securities company	134	7.2	238	10.9
7	0.4	4	0.2	Insurance	0.3	0.0	0	0.00
0	0.0	52	2.4	Pension fund	0	0.0	0	0.00
94	5.0	142	6.5	Asset manager	7	0.4	15	0.7
43	2.3	80	3.6	Others	5	0.3	2	0.1
1,861	100.0	2,188	100.0	Total	1,861	100.0	2,188	100.0

Source: Korea Financial Investment Association

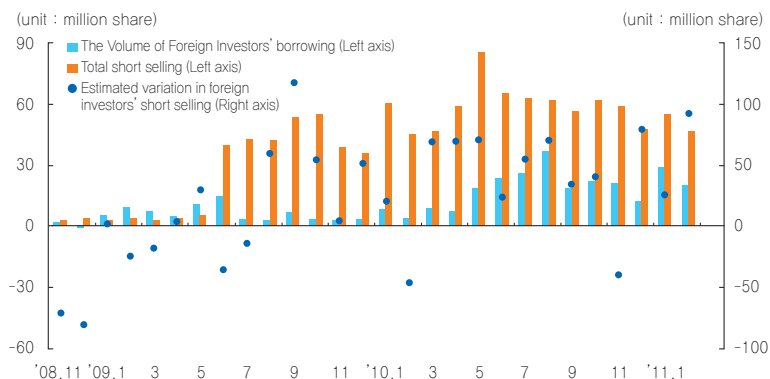
- Much part of the stocks in foreign investors' borrowings is related to the covered short selling.
 - Before June 2006, when the short selling had been prohibited, the foreign investors used to decrease the balance of short selling to make a short covering.

- When the prohibition was lifted, the overall short selling transactions have been expanded in the purpose of the arbitrage.
- Since June 2009 the foreign investors' balance of short selling & the volume of stock borrowings have been constantly increasing.*

* According to KRX, foreigners took 68~94% in total covered short selling (2008.6~2009.8).

* The volume of stock borrowings does not consider the redemption.

<Figure 6> The Volume of Short Selling & Stock Borrowing



Note : Foreign investors' borrowing is the monthly data from KFIA. Total short selling is the data from KRX. Estimated variation in foreign investors' short selling is the difference between the holding stocks and the net purchase.

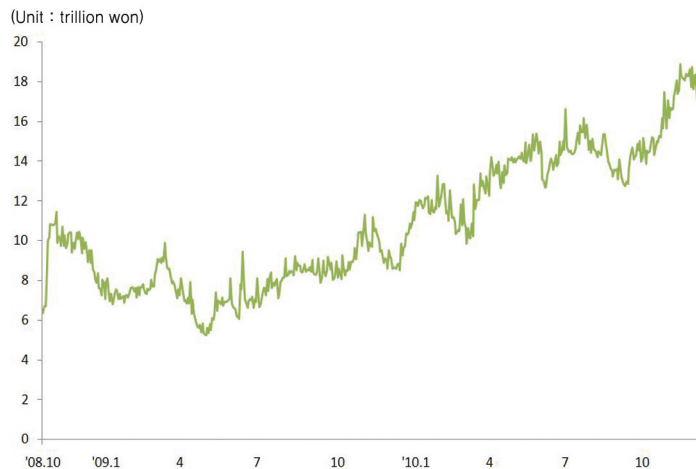
Source: Korea Financial Investment Association, Korea Exchange

- While foreign investors widely use the arbitrage and/or covered short selling (hedge purpose), domestic institutions are passive on using the covered short selling due to its regulations.
 - Banks can only borrow securities if the purpose is hedging.
 - In the case of funds, they can only borrow up to 20% of their asset.

B. Bond Lending

- The balance of bond lending has kept increasing after the global financial crisis.
 - The bond lending market is expected to expand due to the increase in demand on the arbitrage trading and promoting different policies in the RP market.

<Figure 7> Bond Lending



Source: Korea Financial Investment Association

- Unlike the stock lending, bond lending is usually made through KSFC.
 - In the first half of 2010, KSFC took 60.5% while KSD took 39.1% in the market.
- Local residents take most part in both lending & borrowing.
 - In lending, local residents took 99.0% in 2009 and 98.4% in 2010 (slightly decreased but still dominating).

- They were concentrated into the pension fund, and in 2010, the proportion of bank & insurance had been increasing noticeably.
- In borrowing, local residents were also dominating to take more than 98%, and they were concentrated into the securities companies.

<Table 6> Lenders & Borrowers in Bond Lending

(unit: billion ₩)

Lender				Participants	Borrower			
2009		2010			2009		2010	
Amount	%	Amount	%		Amount	%	Amount	%
1,520	1.0	3,944	1.6	Foreigner	2,232	1.4	3,944	1.6
152,010	99.0	239,054	98.4	Local resident	151,298	98.6	239,054	98.4
5,160	3.4	28,881	11.9	Bank	64,900	0.0	4,568	1.9
7,285	4.7	4,610	1.9	Securities company	147,738	96.2	228,680	94.1
2,569	1.7	17,266	7.1	Insurance	0	0.0	0	0.0
135,515	88.3	178,544	73.5	Pension fund	0	0.0	0	0.0
999	0.6	9,342	3.8	Asset manager	1,475	1.0	3,993	1.6
482	0.3	411	0.2	Others	2,020	1.3	1,813	0.8
153,530	100.0	242,998	100.0	Total	153,530	100.0	242,998	100.0

Source: Korea Financial Investment Association

- In domestic market, foreign investors' bond lending is usually made among themselves.
 - In <Table 7>, we can see that about the same amount is being traded among foreign investors.
 - This can be explained by our special structure in the bond market.*

* In bond lending, KSFC takes 60.5% due to the special relationship between KSFC and the securities companies who are in charge of the borrowing.

<Table 7> Foreign Investors' Borrowing & Lending

(unit: billion ₩)

	2009				2010			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Lending	0.0	0.0	0.0	1,520.3	1,452.6	1,030.1	671.8	564.5
Borrowing	0.0	702.6	9.5	1,520.3	1,452.6	1,030.1	671.8	564.5
Net borrowing	0.0	702.6	9.5	0.0	0.0	0.0	0.0	0.0

Source: Korea Financial Investment Association

- Also, weak intention to invest in Gensaki trading is one of the main reasons for foreign investors' poor participation in the bond lending.
 - So far, most of the foreigners' investment on domestic bonds is made through arbitrage trading in the swap market.
 - And participating in domestic Gensaki trading using the bond lending is not very attractive to the foreign investors.
 - Therefore, domestic institutions, who hold most of our domestic bonds, have more chance to make the arbitrage trading.

V. Policy

- In general, securities lending encourages liquidity in the market and gives an opportunity to borrowers & lenders to raise their profits, and eventually stimulates growth in our capital market.
 - Securities lending promotes efficiency in reducing transaction costs, providing information, balancing the market. etc.
 - Lenders earn additional profit from the commission charge and borrowers can protect from default on payment by using the securities lending.

- However, domestic market is too small compared to the markets in the US, UK, and Japan.
 - In 2010, the lending ratio of stock and bond was 2% each, which is much lower than the US, UK, and Japan. <Table 2>

- Also, there are many different models in the market.
 - Both the UK-style (through KSD) and Japanese style (through KSFC & securities companies) are mixed together in the market, but the US-style (participation of financial institutions) is strictly limited.
 - Institutions on domestic securities lending had been reformed fragmentarily, therefore, current institutions might have some inefficiency in the market.

- In a short-term, it is necessary to unify the institutions on the intermediaries, and for a long-term, we need to vitalize the US-style cash lending.

- Currently domestic commission charge on the securities lending & short selling is rated at 3~4%, which is relatively high (ex. below 1% in the US). Therefore, it is difficult to make strategic plans to cover the commission charge.*

* This means the borrowing conditions in domestic lending market are not very good.

1. Infrastructure

- Unifying the institutions on the intermediaries.
 - Necessary to check the efficiency in the market while allowing monopoly on specific institutions (ex. KSD, KSFC).*
 - * If securities companies take the brokerage task, it will be the competition in the retail lending market, not the competition among institutions.
 - Unification can reduce the gap between the bid-ask spread and simplify the trading methods.
 - After the global financial crisis, adopting CCP (Central Counter Party) is under the review for the international securities lending market.
 - Examination on the validity of prices & bank practices and the supply of liquidity is necessary.
 - * Some argues that the market segmentation is made by the difference in network system between KSD and KSFC.
- If the unification is thought to be ineffective, it would be necessary to simplify & unify from each institution to reduce the complexity on the trading.

- Market participants can be confused by the names in similar transactions or little differences in some of the institutions.
 - In infrastructure, KSD is more advanced than KSFC, but the coordination of their businesses is still insufficient in the market.
 - In KSD, holding & transferring securities are controlled under the unified system, but in KSFC, they are separated.
 - Also, the lending is controlled under the unified system, but the borrowing is still not.*
- * KSD is supposed to provide the infrastructure to make the unification, but this effort keeps being delayed.

2. US-Style Cash Lending

- US-style cash lending promotes financial institutions to make profits and expands the demand in the short-term financial market.
 - **(Lender's side: Adopting hedge fund)** Demand in borrowing needs to be promoted through adopting the hedge fund, and domestic banks have to develop new business models such as the US custodian bank.
 - Hedge fund brings efficiency in the market by expanding the liquidity. Currently, adopting the hedge fund is under the review in a positive way.*
- * Some of the changes are already taking place in securities companies.

- In developing new business models, it is important to have each lender's will rather than just making policies.
- **(Borrower's side: Upgrading the limit on the foreign investors' securities lending)** On the review for upgrading the limit on the foreign investors' securities lending (currently ₩50 billion).
 - In the past, the limit on the foreign investors' securities lending has been increasing in steps (₩1 billion to ₩5 billion, ₩5 billion to ₩10 billion, etc.), and if necessary, additional increase should be made.
 - Even if the hedge fund is adopted in domestic, the regulations on naked short selling will be kept enforcing, therefore, upgrading the limit is necessary to act as a counteraction.
- **(Intermediary's side: Promoting joint brokerage system)** Promote joint brokerage system to efficiently manage the collateral & securities.
 - Developing & maintaining the individual system require high costs, which give less motives to participate in the securities lending.

3. Other Institutions

- **(Borrower's side: Ease on the regulations for short selling)** Ease on the regulations for short selling (ex. stocks in financial sectors).
 - Prohibition on the short selling restricts Gensaki trading (domestic index basket used) and the arbitrage trading (foreign DR linked).
 - Currently, the reducing effects on the covered short selling (limitation on the stocks in financial sectors) is approximately 15%.*

* During 2008.06~09 (before the prohibition of covered short selling) and 2008.10~2009.05 (period of the prohibition), the stocks in financial sectors took 15~16% in total covered short selling, but during 2009.06~2009.08 (when only the stocks in financial sectors were prohibited), the proportion decreased to 1% (data from KRX).

- **(Expansion of demand & supply side)** Review on the expansion of demand & supply side which includes participation of private investors, expansion in the demand base, etc.
 - In bond lending, there is a big difference between the index bonds and non-index bonds. For index bonds, there is an excessive demand while non-index bonds have an excessive supply.
 - Stock lending is dominated by the foreign investors and bond lending is dominated by the domestic residents.
 - When the brokerage system is set for the private investors to participate in, demand of the securities lending will be expanded to protect from default on payment in the KOSDAQ market.

- **(Adopting automatic lending service)** Adopt automatic lending service to protect from default on payment.
 - When default on payment is expected to occur, CSD (Central Securities Depository) provides the automatic lending service from a loan pool.
 - Already implemented in some of European countries (Swiss, Germany, Italy, etc.).
 - The automatic lending service also protects from having the liquidity risk.

- **(Promoting plans regarding claims on purchase)** Promote plans regarding claims on purchase.
 - Under the Laws on Capital Market, the policy authorities decided to restrict excessive claims on purchase.
 - In the past, claims on purchase were accepted within 2 weeks of the merge, however, under the Laws on Capital Market, it has to be within 24 hours.
 - Some argues that the restriction on the claims made decrease in the volume of securities lending by lenders.*
 - * Since the period is shortened to 24 hours, if a lender lends the securities on Friday, the claims on purchase cannot be exercised under the current law.

- **(Developing new index)** On the review for developing new index to understand the status of the domestic lending market.
 - In 2009, S&P developed a new index on the average costs of the US securities lending market.
 - This measures the weighted average rebate of the stocks in S&P 500, S&P MidCap 400, S&P SmallCap 600, and GICS® Sector indices.

4. Regulations on Short Selling

- Securities lending is heavily related to the short selling, therefore it is necessary to vitalize the trading without getting disruption from the short selling.

- Necessary to consult the measure on short selling from IOSCO (International Organizations of Securities Commissions) and CESR (Committee of European Securities Regulators). *
 - * These measures are made in support from AFME (Association for Financial Markets in Europe), ISLA (International Securities Lending Association), ISDA (International Swaps and Derivatives Association), etc.
- Necessary to strictly restrict the naked short selling and maintain the regulations for the up-tick rule.
 - Since the naked short selling could bring devastating effects in the market, it has to be prohibited.
 - The up-tick rule is the regulation to protect from direct pricing of excessive short selling where a price must be higher than the price in the previous trade.



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