## Republic of Korea—Update

## Yield Movements

The Republic of Korea's government bond yield curve flattened between end-March and end-July (Figure 1). Yields for 1-, 2-, and 3-year tenors rose during this period, with the 1-year tenor increasing the most at 26 basis points (bps). Yields for 5-, 10-, and 20-year tenors fell 9 bps, 28 bps, and 34 bps, respectively. The yield spread between 2and 10 -year tenors narrowed by 46 bps between end-March and end-July. The flattening of the yield curve appeared to reflect market expectations of further policy rate hikes amid inflationary pressures.

The Bank of Korea raised its base rate-the 7-day repurchase rate-25 bps in January, March, and June for a total increase of 75 bps in the first half of the year. The policy rate hikes were made to counter inflationary pressures and ensure overall price stability. On 11 August, the Bank of Korea decided to hold steady the base rate at $3.25 \%$, noting both the domestic economy's upward growth trend and heightened inflation risk, as well as global downside risks-such as slowing economic growth in the United States (US) and Europe's sovereign debt problems.

Figure 1: The Republic of Korea's Benchmark Yield Curve-LCY Government Bonds


In the first 3 months of the year, consumer price inflation climbed steadily from $4.1 \%$ year-onyear ( $y-0-y$ ) in January to $4.5 \%$ in February and $4.7 \%$ in March. At the start of 2Q11, however, the inflation rate dipped to $4.2 \% \mathrm{y}-\mathrm{o}-\mathrm{y}$ in April and declined further to $4.1 \%$ in May, after which it rose to $4.4 \%$ in June. In July, consumer price inflation increased further to $4.7 \%$ y-o-y mainly due to a $10.0 \%$ spike in the price index for food and nonalcoholic beverages.

Advance estimates for the country's real gross domestic product (GDP) released in July showed that economic growth eased to $0.8 \%$ quarter-onquarter ( $\mathrm{q}-\mathrm{o}-\mathrm{q}$ ) in 2 Q 11 from $1.3 \%$ in 1 Q 11 , as export growth slowed to $1.8 \%$ from $3.3 \%$ in the previous quarter. On a $y-0-y$ basis, the real GDP growth rate fell to $3.4 \%$ in 2Q11 from $4.2 \%$ in 1Q11.

## Size and Composition

The local currency (LCY) bond market in the Republic of Korea had grown $8.1 \%$ y-o-y and $2.3 \%$ q-o-q as of end-June, with total bonds outstanding amounting to KRW1,358.9 trillion (US $\$ 1.3$ trillion)
(Table 1). The outstanding amount of LCY government bonds reached KRW582.4 trillion at end-June, up 4.2\% from June 2010 and 1.3\% from the previous quarter. Central government bonds-largely consisting of Korea Treasury Bonds (KTBs)-increased $8.2 \%$ y-o-y and $2.2 \% \mathrm{q}-\mathrm{o}-\mathrm{q}$ to KRW386.9 trillion. In contrast, Monetary Stabilization Bonds (MSBs)-bonds issued by the Bank of Korea-decreased 1.0\% y-0-y and $1.5 \%$ q-o-q to KRW166.0 trillion. Meanwhile, the outstanding size of industrial finance debenturesbonds issued by the Korea Development Bank (KDB)-fell $12.7 \%$ y-o-y, but rose $5.2 \%$ q-o-q.

Total LCY government bond issuance in 2Q11 stood at KRW88.1 trillion, which was $16.3 \%$ higher than in the previous quarter. The increase was bolstered by a $26.9 \%$ q-o-q rise in MSB issuance in 2Q11, which totaled KRW60.8 trillion. On the other hand, issuance of central government bonds declined
Table 1: Size and Composition of the LCY Bond Market in the Republic of Korea

$\mathrm{LCY}=$ local currency, $\mathrm{m}-\mathrm{o}-\mathrm{m}=$ month-on-month, $\mathrm{q}-\mathrm{o}-\mathrm{q}=$ quarter-on-quarter, $\mathrm{y}-\mathrm{o}-\mathrm{y}=$ year-on-year.

1. Calculated using data from national sources.
2. Central government bonds include Korea Treasury Bonds, National Housing Bonds, and Seoul Metropolitan Subway Bonds.
3. Bloomberg LP end-of-period LCY-US\$ rates are used. 3. Bloomberg LP end-of-period LCY-US\$ rates are used.
4. Growth rates are calculated from LCY base and do not include currency effects.
Source: The Bank of Korea, EDAILY BondWeb, and Bloomberg LP.
3.6\% from the previous quarter to KRW23.8 trillion in 2Q11.

Two of the largest government bond issues in 1 H 11 were a KRW12.7 trillion 2-year MSB issued in April at a $3.83 \%$ coupon and a KRW10.7 trillion 5-year KTB issued in March with a coupon rate of $4.0 \%$.

The government started auctioning 28-day treasury bills in March and had sold a total of KRW9.7 trillion worth by end-June. In addition, the government sold a 10-year inflation-linked bond in June worth KRW244 billion with a coupon rate of $1.5 \%$. At end-June, the outstanding size of inflation-linked bonds was KRW3.6 trillion.

The LCY corporate bond market at endJune amounted to KRW776.4 trillion, having expanded $11.3 \% \quad \mathrm{y}-\mathrm{o}-\mathrm{y}$ and $3.0 \% \quad \mathrm{q}-\mathrm{o}-\mathrm{q}$ (Table 1). The growth was spearheaded by private corporate bonds that grew $25.9 \%$ y-o-y and $5.2 \%$ q-o-q to reach KRW317.5 trillion. In 2Q11, the amount of outstanding special public bonds climbed $7.7 \% \quad \mathrm{y}-\mathrm{o}-\mathrm{y}$ and $2.8 \% \mathrm{q}-\mathrm{o}-\mathrm{q}$, totaling KRW253.2 trillion. Meanwhile, financial debentures (excluding KDB bonds) slipped $2.2 \%$ y-o-y and $0.1 \%$ q-o-q to KRW205.8 trillion.

The top 50 issuers of LCY corporate bonds had a cumulative outstanding balance at end-June of KRW577.8 trillion, or 74\% of total corporate bonds outstanding (Table 2). Of the top 50 issuers of LCY bonds in the Republic of Korea at endJune, $70 \%$ were financial institutions and $56 \%$ were privately owned entities. Meanwhile, 44\% were listed on the Korea Exchange. Korea Land \& Housing Corp. remained the largest issuer of corporate bonds with total outstanding bonds of KRW55.3 trillion at end-June.

In 2Q11, total LCY corporate bond issuance was KRW84.1 trillion, of which $54 \%$ were private corporate bonds, $27 \%$ were financial debentures, and the remaining $19 \%$ were special public bonds. Corporate bond issuance in 2Q11 was up $14.8 \%$ q-o-q, but down $0.3 \%$ y-o-y. On a q-o-q basis, issuance increased for all three types of corporate bonds-financial debentures, private

Table 2: Top 50 Issuers of LCY Corporate Bonds in the Republic of Korea (as of June 2011)

| Issuers | Outstanding Amount |  | StateOwned | PrivatelyOwned | Listed In |  | Type of Industry |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  | (KRW billion) | (US\$ billion) |  |  | kospi | KOSDAQ |  |
| 1. Korea Land \& Housing Corp. | 55,277 | 51.8 | Yes | No | No | No | Real Estate |
| 2. Korea Housing Finance Corp. | 36,190 | 33.9 | Yes | No | No | No | Financial |
| 3. Industrial Bank of Korea | 30,715 | 28.8 | Yes | No | Yes | No | Bank |
| 4. Korea Finance Corp. | 29,430 | 27.6 | Yes | No | No | No | Financial |
| 5. Korea Highway | 24,580 | 23.0 | Yes | No | No | No | Infrastructure |
| 6. Korea Deposit Insurance Corp. | 24,520 | 23.0 | Yes | No | No | No | Insurance |
| 7. Kookmin Bank | 22,508 | 21.1 | No | Yes | No | No | Bank |
| 8. Korea Electric Power Corp. | 22,200 | 20.8 | Yes | No | Yes | No | Utility |
| 9. Daewoo Securities | 20,515 | 19.2 | Yes | No | Yes | No | Securities |
| 10. Shinhan Bank | 19,677 | 18.4 | No | Yes | No | No | Bank |
| 11. Woori Bank | 17,732 | 16.6 | Yes | No | No | No | Bank |
| 12. Woori Investment and Securities | 16,666 | 15.6 | Yes | No | Yes | No | Securities |
| 13. Hana Bank | 14,819 | 13.9 | No | Yes | No | No | Bank |
| 14. Small \& Medium Business Corp. | 14,603 | 13.7 | Yes | No | No | No | Financial |
| 15. Korea Investment and Securities | 13,732 | 12.9 | No | Yes | No | No | Securities |
| 16. Nonghyup (National Agricultural Cooperative Federation) | 12,850 | 12.0 | Yes | No | No | No | Bank |
| 17. Korea Rail Network Authority | 12,325 | 11.5 | Yes | No | No | No | Infrastructure |
| 18. Tong Yang Securities | 10,861 | 10.2 | No | Yes | Yes | No | Securities |
| 19. Korea Gas Corp. | 10,580 | 9.9 | Yes | No | Yes | No | Utility |
| 20. Mirae Asset Securities | 9,842 | 9.2 | No | Yes | Yes | No | Securities |
| 21. Hyundai Securities | 9,470 | 8.9 | No | Yes | Yes | No | Securities |
| 22. Shinhan Card | 9,329 | 8.7 | No | Yes | No | No | Financial |
| 23. Hyundai Capital Services | 7,400 | 6.9 | No | Yes | No | No | Securities |
| 24. Standard Chartered First Bank Korea | 7,060 | 6.6 | No | Yes | No | No | Bank |
| 25. Shinhan Financial Group | 7,050 | 6.6 | No | Yes | Yes | No | Financial |
| 26. Hana Daetoo Securities | 6,849 | 6.4 | No | Yes | No | No | Securities |
| 27. Korea Railroad Corp. | 6,840 | 6.4 | Yes | No | No | No | Infrastructure |
| 28. Korea Water Resources | 6,814 | 6.4 | Yes | No | Yes | No | Utility |
| 29. Korea Eximbank | 6,430 | 6.0 | Yes | No | No | No | Bank |
| 30. KB Kookmin Card | 6,190 | 5.8 | No | Yes | No | No | Financial |
| 31. SH Corp. | 6,058 | 5.7 | No | Yes | No | No | Manufacturing |
| 32. Hyundai Card | 5,640 | 5.3 | No | Yes | No | No | Financial |
| 33. Samsung Securities | 5,421 | 5.1 | No | Yes | Yes | No | Securities |
| 34. Kiwoom Securities | 5,316 | 5.0 | No | Yes | Yes | No | Securities |
| 35. Shinhan Investment Corp. | 5,227 | 4.9 | No | Yes | No | No | Securities |
| 36. Korea Student Aid Foundation | 4,870 | 4.6 | Yes | No | No | No | Education |
| 37. KT Corp. | 4,740 | 4.4 | No | Yes | Yes | No | Telecoms |
| 38. Dongbu Securities | 4,532 | 4.2 | No | Yes | Yes | No | Securities |
| 39. Samsung Card | 4,280 | 4.0 | No | Yes | Yes | No | Financial |
| 40. Incheon Urban Development Corp. | 4,258 | 4.0 | Yes | No | No | No | Infrastructure |
| 41. Korea Exchange Bank | 3,950 | 3.7 | No | Yes | Yes | No | Bank |
| 42. Korea Hydro \& Nuclear Power | 3,730 | 3.5 | Yes | No | No | No | Utility |
| 43. Woori Financial Group | 3,660 | 3.4 | Yes | No | Yes | No | Financial |
| 44. Hana Financial Group | 3,640 | 3.4 | No | Yes | Yes | No | Financial |
| 45. GS Caltex Corp. | 3,460 | 3.2 | No | Yes | No | No | Utility |
| 46. Posco | 3,300 | 3.1 | No | Yes | Yes | No | Manufacturing |
| 47. Korean Air Lines | 3,270 | 3.1 | No | Yes | Yes | No | Air transport |

Table 2 continued

| Issuers | Outstanding Amount |  | StateOwned | PrivatelyOwned | Listed In |  | Type of Industry |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | LCY Bonds (KRW billion) | LCY Bonds (US\$ billion) |  |  | kospi | KOSDAQ |  |
| 48. National Federation of Fisheries Cooperatives | 3,195 | 3.0 | Yes | No | No | No | Financial |
| 49. Kyobo Securities | 3,181 | 3.0 | No | Yes | Yes | No | Securities |
| 50. Shinyoung Securities | 3,049 | 2.9 | No | Yes | Yes | No | Securities |
| Total Top 50 LCY Corporate Issuers | 577,831 | 541.2 |  |  |  |  |  |
| Total LCY Corporate Bonds | 776,440 | 727.2 |  |  |  |  |  |
| Top 50 as \% of Total LCY Corporate Bonds | 74.4\% | 74.4\% |  |  |  |  |  |

KOSPI = Korea Composite Stock Price Index, KOSDAQ = Korean Securities Dealers Automated Quotations, LCY = local currency. Source: AsianBondsOnline, EDAILY BondWeb, and Bloomberg LP.
corporate bonds, and special public bonds-by $10.8 \%$, 22.9\%, and $1.5 \%$, respectively. On a y-o-y basis, private corporate bond issuance surged $33.8 \%$, whereas issuance of financial debentures and special public bonds fell $28.2 \%$ and $14.3 \%$, respectively.

Two of the largest individual LCY corporate bond issues in 1 H 11 were the Industrial Bank of Korea's KRW550 billion 6-month zero-coupon bond issued in May and Hana Financial Group's KRW520 billion 5 -year bond issued in January. The latter bond has a coupon rate of $4.78 \%$.

## Investor Profile

As of end-March, the Republic of Korea's general government-which comprises the central government, local government, and social security
funds-remained the largest investor in LCY government bonds with a $24 \%$ share (Figure 2). The general government was closely followed by insurance companies and pension funds, which held $23 \%$ of the total. Between March 2010 and March 2011, the share of the general government's holdings declined 4 percentage points, while the share of insurance companies and pension funds increased 1 percentage point. The largest share increase during this period came from foreign investors, which held $10 \%$ of total government bonds at end-March, a y-o-y increase of 3 percentage points. Between March 2010 and March 2011, the shares of local individual investors and other financial institutions (financial institutions other than banks, insurance firms, and pension funds) rose 1 percentage point each, whereas the share of banks dropped 2 percentage points.

Figure 2: LCY Government Bonds Investor Profile


Insurance firms and pension funds surpassed other financial institutions as the largest holder of LCY corporate bonds at the end of March (Figure 3). Between March 2010 and March 2011, the share of corporate bonds held by insurance firms and pension funds climbed from $29 \%$ to $32 \%$, while that of other financial institutions remained steady at $30 \%$. Also, the respective shares of the general government and local individual investors increased 1 percentage point each, whereas the share of banks fell 5 percentage points over the same period.

## Liquidity

Liquidity in the LCY government bond market improved in recent quarters, but it has remained stagnant in the LCY corporate bond market (Figure 4). The turnover ratio for government bonds rose sharply to 1.15 in 2Q11 from 0.97 in 1Q11 as the trading of MSBs and central government bonds-particularly KTBs-increased during this period. For example, the turnover ratio for central government bonds climbed from 0.98 in the previous quarter to 1.21 in 2 Q 11 , reflecting a rebound in central government bond market liquidity following a downward trend in 4Q10 and 1Q11. Similarly, the bid-ask spreads for both KTBs and MSBs narrowed in January-June (Figure 5), highlighting improved liquidity for both of these government bond instruments.

Figure 4: Turnover Ratio for Government and Corporate Bonds, 1Q09-2Q11

$\mathrm{LCY}=$ local currency.
Source: The Bank of Korea and EDAILY BondWeb.

Figure 5: Bid-Ask Spreads for Government Bonds, January-June 2011


LCY = local currency, $\mathrm{KTBs}=$ Korea Treasury Bonds, MSBs $=$ Monetary Stabilization Bonds.
Source: EDAILY BondWeb.

Figure 3: LCY Corporate Bonds Investor Profile


LCY = local currency.
Source: AsianBondsOnline, The Bank of Korea.

On the other hand, the turnover ratio for corporate bonds remained flat at 0.18 between $4 Q 10$ and the end of 2Q11. Financial debentures were still the most liquid of all types of corporate bonds with a turnover ratio of 0.38 in 2Q11, followed by special public bonds (0.12) and private corporate bonds (0.08) (Figure 6). In 2Q11, the turnover trends for corporate bonds were marginal and mixed-rising 0.01 point for private corporate bonds and falling 0.01 point for both financial debentures and special public bonds.

The trading activity of 3-year KTB futures was relatively buoyant in $1 Q 11$, as the number of traded contracts for this type of derivative totaled 8.1 million, which is slightly lower than the recordhigh of 8.4 million in 1Q11 (Figure 7). In the first 5 months of the year, the number of 3-year KTB futures contracts traded reached 12.8 million, up $24.0 \%$ y-o-y. The largest investor group in 3-year KTB futures was securities and futures companies, which sold $55.3 \%$ of all contracts during the first 5 months of the year, while the second largest was banks, which sold $24.3 \%$ of the total in the same period.

## Rating Changes

In May, Rating and Investment Information (R\&I) affirmed its foreign currency issuer rating and LCY issuer rating for the Republic of Korea

Figure 6: Turnover Ratio for Major Types of LCY Corporate Bonds, 1Q09-2Q11


[^0]Note: Financial debentures exclude Korea Development Bank. Source: EDAILY BondWeb.

Figure 7: Trading Volume of 3-Year KTB Futures, 1Q09-1Q11 (millions of contracts traded)


KTB $=$ Korea Treasury Bond.
Source: Korea Exchange (KRX).
at $A+$ and $A A-$, respectively, and maintained its stable outlook for the country (Table 3). In affirming its ratings, R\&I noted the country's "economic strength" on the back of more than 6\% growth in 2010 and expected growth of more than $4 \%$ in 2011. It also attributed its ratings to the country's "prudent fiscal management" and current account surplus.

Table 3: Selected Sovereign Ratings and Outlook for the Republic of Korea

|  | Moody's | S\&P | Fitch | R\&I |
| :--- | :---: | :---: | :---: | :---: |
| Sovereign FCY LT Ratings | A1 | A | A+ | A+ |
| Outlook | stable | stable | stable | stable |

FCY = foreign currency, LT = long-term.
Source: Rating agencies.

## Policy, Institutional, and Regulatory Developments

## Investment of Foreign Exchange Agencies in Domestic Foreign Currency-Denominated Bonds Restricted

The Bank of Korea restricted foreign exchange agencies' investments in foreign currencydenominated bonds issued domestically for Korean won financing, effective 25 July. This change was made in light of the Bank of Korea's
new measures to enhance regulations on foreign currency-denominated loans implemented in July 2010, requiring these loans to be used for overseas purposes only. The Bank of Korea has noted that domestic foreign currencydenominated bond issuance by local enterprises has increased recently, with issuers converting 70\% of their proceeds into the Korean won.

## Measures on Household Debt Announced

The Financial Services Commission (FSC) and the Financial Supervisory Service (FSS) announced a set of comprehensive measures in June to improve the growth and soundness of household debt, provide better credit access to lowincome households, and enhance consumer protection. The household debt measures, which are intended for implementation in the second half of the year, include (i) applying higher Bank for International Settlements (BIS) risk weights on banks' high-risk mortgage loans, (ii) introducing leverage regulations covering credit companies, (iii) widening the accessibility of microcredit programs, and (iv) promoting banks' issuance of covered bonds and mortgage-backed securities (MBSs).

## Guidelines on Covered Bond Issuance Released

In June, the FSC and the FSS jointly released guidelines on covered bond issuance, including the definition of covered bonds as well as the requirements for their issuance and cover assets. The guidelines specify that the eligible issuers of covered bonds are banks with more than a $10 \%$ BIS ratio, or securitization entities established by such banks. Furthermore, the issuance amount must not be greater than $4 \%$ of the issuer's total liabilities and the maturity profile must be between 1 and 30 years. Finally, the cover assets must comprise certain mortgage loans and MBSs issued by the Korea Housing Finance Corporation.

## Revision on Loan-Loss Requirements for Credit Card Assets

The FSC revised its regulations on loan-loss requirements for credit card assets in June with the aim of strengthening the ability of credit card companies to absorb losses and mitigate excessive competition in the credit card debt market. Specifically, the FSC raised the loan-loss provisioning ratio for sales on credit and credit card debt for most loan classification typesparticularly precautionary, substandard, and doubtful loans.

## Preliminary Primary Dealer System Launched

The government launched its preliminary primary dealer (PPD) system in March in order to enhance the market-making primary dealer system and help further the development of the KTB market. In April, the government appointed two foreign banks-ING CB Seoul and Credit Agricole CIB Seoul-as PPDs in the domestic bond market. PPDs can participate in KTB auctions and conduct market-making obligations, but receive fewer incentives than primary dealers.


[^0]:    LCY = local currency.

