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Republic of Korea: 2011 Article IV Consultation—Staff Report and Public Information Notice on the Executive Board Discussion

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2011 Article IV consultation with the Republic of Korea, the following documents have been released and are included in this package:

- The staff report for the 2011 Article IV consultation, prepared by a staff team of the IMF, following discussions that ended on June 17, 2011, with the officials of the Republic of Korea on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on July 14, 2011. The views expressed in the staff report are those of the staff team and do not necessarily reflect the views of the Executive Board of the IMF.

- A Public Information Notice (PIN) summarizing the views of the Executive Board as expressed during its July 29, 2011 discussion of the staff report that concluded the Article IV consultation.

The document listed below has been or will be separately released.

Selected Issues Paper

The policy of publication of staff reports and other documents allows for the deletion of market-sensitive information.

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INTERNATIONAL MONETARY FUND

REPUBLIC OF KOREA

STAFF REPORT FOR THE 2011 ARTICLE IV CONSULTATION

July 14, 2011

KEY ISSUES

Near-term outlook. In the context of a robust expansion, growth in 2011 is projected above potential at 4½ percent, supported by both domestic demand and exports, before easing to 4.2 percent next year. Downside risks are mainly external, including contagion from fiscal and financial stresses in Europe, weaker growth in advanced economies or an escalation of geopolitical tensions with North Korea. Domestic risks relate to higher-than-expected inflation and ongoing weaknesses in the construction sector.

Ensuring a soft landing. Against the backdrop of a positive and rising output gap, and easy monetary conditions, further monetary policy tightening and greater two-way exchange rate flexibility are needed to contain overheating pressures, anchor inflation expectations, and prevent a further buildup of leverage in the economy.

Enhancing the macrofinancial policy framework. More closely integrating macroeconomic and financial policies in an internally consistent framework would help capture their cross-sectoral implications and preempt the buildup of vulnerabilities. Key elements include incorporating financial stability in the conduct of monetary policy, harmonizing macroprudential policies with appropriate macroeconomic policy settings, and integrating longer-term general government liabilities within the fiscal framework.

Ensuring sustainable and equitable growth. Policies need to be stepped up to ensure that the sources of growth are broadened beyond exports, to make the economy more resilient to shocks and growth more equitable. Priorities include reforms to revitalize the nontradables sector and increase the formal labor force participation rate.

Approved By
Hoe Ee Khor and Aasim Husain

Discussions took place in Seoul during June 2–17, 2011. The staff team comprised Messrs. Lall (head) and Alichi, and Mmes. Karasulu, Aydin and Lin (all APD), supported by Ms. Utsunomiya (EXR). Mr. Choi (OED) participated in key policy meetings.

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INTRODUCTION

1. **Korea's rapid recovery from the global downturn has transitioned into a full-fledged expansion.** This rebound was initially driven by the normalization of global trade and supportive macroeconomic and financial policies. Fiscal policy moved toward consolidation last year. However, monetary policy remains accommodative and the real effective exchange rate is below pre-crisis levels. As a result, both output and its growth rate are above the economy's estimated potential.

2. **Macroeconomic policy settings now need to reflect fully the economy's strong cyclical position.** Despite some recent softening in high-frequency indicators, underlying dynamics suggest a continued solid expansion. Robust underlying demand and second-round effects of high commodity prices require a more decisive monetary policy response supported by greater two-way flexibility of the exchange rate, to ensure a soft landing.

3. **The time is appropriate for resolute implementation of policies to strengthen the resilience of the economy and pave the way for sustained and equitable growth.** Integrating macroeconomic and financial policies, including macroprudential tools, within a comprehensive policy framework that fully internalizes macrofinancial linkages, would help strengthen the economy's resilience to shocks. Policies that help expand the sources of growth beyond the tradables sector, thereby creating a second engine of growth, would allow the benefits of growth to be shared more broadly. These need to be complemented with a strengthened social safety net and fiscal policies that address the economy's long-term challenges, including those related to aging.

THE ECONOMIC CONTEXT

A. From Recovery to Expansion

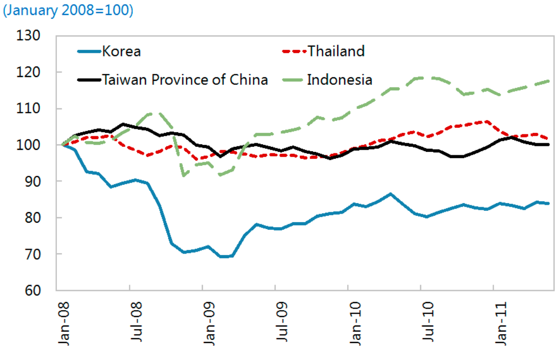
4. **The Korean economy transitioned from recovery to a robust expansion in the second half of 2010.** This expansion was supported by both strong exports and robust domestic demand. Overall, the economy expanded by 6.2 percent in 2010. Momentum eased in the first half of 2011, reflecting the maturing of the expansion as well as several temporary factors (Figure 1). Investment was dented by balance sheet problems in the construction sector, while consumption was weakened by the impact of rising food and

fuel prices on real disposable incomes. Export growth eased due to the adjustment of global inventories and softening of industrial production growth. The supply chain disruptions from Japan's earthquake had only a limited impact on Korea's exports.

5. Aggregate demand pressures, compounded by the rise in food and fuel prices, have led to a rise in inflation. Monetary conditions remain highly accommodative despite cumulative rate hikes of 125 basis points (bps)—from an all-time low of 2 percent—since July 2010. To address the rise in inflation, the authorities have also been implementing administrative price stabilization measures since January 2011, including the freezing of public utility prices and discouraging public universities' tuition increases, temporary reductions in custom tariffs, tax incentives and moral suasion,[1] and measures to address distribution bottlenecks and anti-competitive practices. These measures, combined with the subsiding of foot-and-mouth disease, helped ease headline inflation from a peak of 4.7 percent in March to 4.1 percent in May before rising to 4.4 percent in June. Core inflation has risen continuously since December 2010, suggesting that second-round effects from the earlier spike in food and fuel prices as well as price pressures from underlying demand are becoming evident. Wage pressures are, however, not yet apparent even though employment growth and the unemployment rate have reverted to pre-crisis levels. This partly reflects the lagged adjustment in labor markets, as temporary workers are being initially replaced by regular workers, and pending union wage negotiations.

6. The external current account is in surplus and the real effective exchange rate (REER) is weaker than the pre-crisis levels. With the recovery from the crisis, Korean exports grew by 30 percent in 2010, leading to a current account surplus of 2.8 percent of GDP, about 0.5 percentage points above the 2000–07 average. The REER remaining well below pre-crisis levels also supported the positive current account balance, with a surplus of 0.9 percent of GDP in the first quarter of 2011.

REER
(January 2008=100)



Source: IMF, *Information Notice System*.

7. Policy measures have been introduced to manage the volatility of capital inflows. Korea's strong growth and a perceived one-way bet on the currency, in an environment of ample global liquidity, supported large inflows since 2009, primarily

[1] Oil refineries accepted a reduction in refined fuel prices until July 6.

through the portfolio flow channel. The authorities' valid concerns regarding capital flow volatility have led to a matrix of policy measures (Box 1). One key objective was to avoid a rapid rise in short-term external bank debt, which had led Korea to suffer a sudden stop in capital inflows during the global crisis, and measures targeted both sides of banks' balance sheets. To address the portfolio flow channel, withholding taxes on interest income and capital gains on nonresidents' holdings of Treasury and Monetary Stabilization Bonds were reintroduced.

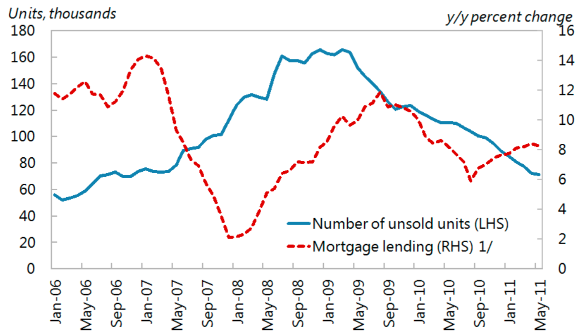
8. **Overall credit to households is robust and funding conditions for large corporates are favorable (Figure 2)**. With the imposition of a 100 percent loan-to-deposit (LTD) ratio limit on commercial banks to limit their non-core funding, nonbank financial institutions have become a major source of credit to households. Mortgage lending from banks has recovered, aided by the temporary relaxation of borrowing rules to support the property market in mid-2010 and prevailing low interest rates. In light of the robust overall lending to households, their debt is estimated at 125 percent of disposable income as of March 2011. Nevertheless, aggregate credit growth from banks remains subdued, exacerbated by the expiration of official guidance to roll over small- and medium-size enterprise (SME) loans, leading to a pullback of lending to this sector.

9. **The banking sector as a whole remains strong, notwithstanding the run on deposits in some mutual saving banks (MSBs) this year**. The average capital adequacy ratio (CAR) of the commercial banking system stood at 14.3 percent, while the LTD ratio has declined to 96½ percent. Meanwhile, nonperforming loans (NPLs) remain low at 1.3 percent. The decline in demand for corporate foreign exchange (fx) hedging in the aftermath of the crisis and the authorities' capital flow measures have helped prevent banks' external short-term debt from returning to pre-crisis levels. Macroprudential measures have reduced maturity mismatches, and coupled with LTD limits, lowered commercial banks' reliance on wholesale funding. However, the share of nonperforming SME loans remains high as progress on bank-led SME restructuring has been slow.[2] Weaknesses in the construction and real estate sector were the predominant cause of the run on deposits in eight MSBs this year. The authorities have responded swiftly by suspending the operations of these banks while protecting insured deposits. They have coordinated with commercial banks the establishment of a Project Financing Stabilization (PFS) bank—a "bad bank"—to restructure large PF loans. Some of these loans are used for funding real estate and construction projects that also received

[2] Moreover, past rollovers encouraged as part of crisis response measures could understate the ratio of substandard loans.

financing from commercial banks. Financial supervisors are reviewing the asset portfolios of MSBs, starting with their PF loans, to initiate the process of restructuring through asset purchases (up to W 5 trillion) by Korea Asset Management Corporation (KAMCO).[3]

Unsold Residential Property and Mortgage Lending



Source: CEIC Data Company Ltd.
1/ Commercial and specialized banks.

10. House prices have stabilized after two short-lived downturns and recoveries since 2008. Since the most recent trough in mid-2010, national house prices have risen by about 5 percent, and are 8.4 percent above their post-crisis lows. The number of unsold units has been reduced to pre-crisis levels, including through purchases by the state-owned Korea Land and Housing Corporation (KLHC).

B. Outlook and Risks–Robust Growth with Elevated Inflation Pressures

Staff 's Views

11. Buoyant exports and firming domestic demand, against the backdrop of accommodative monetary conditions, are expected to keep growth above its estimated potential during 2011. With the expected fading of temporary factors, Korea's exports are projected to remain strong, leading to a current account surplus of around 1 percent of GDP this year. With capacity utilization near all-time highs and business confidence robust, facilities investment is projected to improve in the second half of the year in line with exports. With strengthening employment and the stabilization of food and fuel prices, household incomes are expected to buoy consumption growth. As a result, growth for 2011 as a whole is projected at 4.5 percent, above its estimated potential of 4 percent, before easing to 4.2 percent next year.

12. Average inflation is expected to remain above the Bank of Korea's (BOK) inflation target of 3 ± 1 percent in 2011. Despite the rate hikes thus far, real policy rates remain negative. The administrative price stabilization measures are estimated to have

[3] The authorities have also set up a new Special Account with a target size of W 15 trillion by 2026 to cover losses on MSB deposits occurring after 2011. The Special Account will be funded mainly through 100 percent of deposit insurance premiums of MSBs and 45 percent of the premiums paid by all other financial institutions.

reduced average headline inflation by about 0.3 percentage points in the first half of 2011. However, the underlying strength of the expansion points to persistent inflationary pressures. Moreover, in the second half of the year, some measures will expire and public utility prices will be adjusted up as they are becoming more difficult to sustain.[4] As a result, average CPI inflation is projected to reach 4.3 percent in 2011 before easing to 3.6 percent in 2012, assuming decisive monetary policy tightening going forward.

13. **Risks to the near-term growth outlook are broadly balanced.** On the downside, risks of weaker demand for Korean exports from advanced economies and spillover effects from financial and fiscal stresses in Europe are now somewhat more elevated. An easing of growth in China, Korea's largest trading partner, would adversely affect Korean exports. However, the spillover of higher inflation in China would be contained, given that the significant proportion of Chinese imports are not used for domestic consumption. An escalation of geopolitical tensions with North Korea remains a significant risk. The key domestic risks relate to the impact of higher-than-expected inflation and the distress in the construction and real estate SME sector. These are broadly balanced by the upside risks from higher growth in emerging markets, and the post-earthquake reconstruction-related demand from Japan.

14. **Medium-term growth is projected at around 4 percent.** This lower trajectory reflects the maturing of the economy, its rebalancing and its structural challenges. The contribution of exports to growth is expected to gradually diminish—despite Korea's diversification of exports toward fast growing emerging markets—and the nontradables sector would not necessarily be able to fully offset the decline in exports' contribution given its lower productivity. The overall strength of domestic demand will be limited by the high indebtedness of households and SMEs.

The Authorities' Views

15. **While remaining somewhat more optimistic, the authorities broadly concurred with the staff's assessment of the macroeconomic outlook.** They viewed the underlying growth momentum as strong, despite the recent soft data, and expected the expansion to continue in the second half of the year. They acknowledged that their target of 5 percent GDP growth and 3 percent CPI inflation in 2011 may be difficult to achieve, but expected inflation to remain within the

[4] Pohang Iron and Steel Company (POSCO), the largest steel maker, announced in April that it cannot sustain the price cuts on its products anymore; and a hike in public utility charges is expected to limit losses at local governments and distributors.

target band.[5] Next year, the authorities expect somewhat higher growth than the staff, while their inflation projections are broadly in line with those of the staff.

16. The authorities also shared the staff's views about the risks to the outlook. They did not expect a substantial negative impact on growth from the stresses in the periphery countries of Europe, due to limited direct trade and financial links, unless this were to affect global financial conditions. They, however, viewed the recent slowdown in global industrial activity as pointing to higher risks to growth for advanced economies. They considered potential spillovers from inflation in China as a larger concern than the impact of a moderation of growth in China. They expected the post-earthquake rebound in Japan to have a broadly positive impact on growth and the supply chain problems, as seen in some sectors, such as automobile and mobile phone components, to be temporary.

17. Growth in new sectors was seen as key to lift medium-term growth and rebalance the economy. Several sectors have been identified as priority areas, including in services, based on their potential for high value-added output and employment generation. For example, the authorities noted that they are promoting green growth through incentives to improve energy efficiency and increase competitiveness in alternative energy industries, and by reorienting research and development (R&D) spending towards higher value-added output. They also plan to continue their efforts to rebalance the economy by deregulation and improving the investment environment in the services sector to facilitate competition, including from abroad.

POLICY THEME #1—ENSURING A SOFT LANDING

The main policy challenge for the near term is to ensure a soft landing through appropriate macroeconomic and macroprudential policies. This primarily requires further monetary tightening and greater two-way exchange rate flexibility. The budgeted fiscal stance for 2011 is appropriate, with room to accelerate fiscal consolidation during 2012–13, should aggregate demand pressures persist.

[5] On June 30, the Ministry of Strategy and Finance (MOSF) revised its projection of growth down to 4.5 percent and inflation up to 4 percent.

Background

18. Despite some tightening, monetary policy remains accommodative and the exchange rate is below its long-run average (Figure 3). Policy rates were appropriately lowered during the global financial crisis, and were raised by a cumulative 125 bps since last July as economic conditions improved. The policy rate now is some 75 bps below neutral, with the real rate around -1 percent. Despite some recent appreciation, the REER remains 11 percent below its 2000–07 average.

19. The fiscal policy stance was swiftly normalized after the crisis. Following the withdrawal of stimulus last year, the budgeted fiscal stance in 2011 is estimated as broadly neutral. The impact of the corporate and personal income tax cuts that were implemented in 2008–09 has been neutralized through base broadening and restraining expenditure growth. The medium-term consolidation path targets budget balance by 2013–14, excluding social security funds.

Staff's Views

20. Ensuring a soft landing will require further monetary tightening. The policy rate hikes thus far, although gradual, are welcome, and should continue in a more decisive manner, given the strong underlying economic momentum and lags in monetary policy. The policy rate would need to be raised above neutral to bring inflation back within the target band and safeguard the credibility of the BOK. In addition, steady monetary policy tightening could help limit the further buildup of leverage in the nonfinancial private sector. Delays in monetary tightening would eventually require larger rate hikes in the future to reanchor inflation expectations, which could be financially destabilizing, given the high indebtedness of households and SMEs. This may lead to a hard landing for the economy and hence should be avoided.

21. The broadly neutral fiscal stance remains appropriate for now, but there is room for further tightening to complement monetary policy. Given the economy's cyclical position, at a minimum, the projected revenue overperformance in 2011 should be saved, except for mandated transfers to local governments, and the fiscal costs of administrative price measures should be offset through expenditure cuts elsewhere. Although the medium-term balanced budget target remains appropriate, there is also room to accelerate consolidation plans in 2012. The fiscal rule embedded in the National Fiscal Management Plan for 2010–14 limits expenditure growth to 2–3 percentage points of GDP below revenue growth until budget balance is achieved, making fiscal policy potentially procyclical.

22. Further two-way exchange rate flexibility would also help in the policy response to inflation. A more appreciated currency would help limit the pass-through of imported good prices to CPI inflation. Based on the IMF staff's Consultative Group on Exchange Rates (CGER) assessment, the REER is undervalued by about 10 percent. As of March 2011, Korea's reserves were around 150 percent of short-term external debt, the most relevant standard metric for reserve adequacy in Korea. In the staff's view, the need to accumulate additional reserves is not clear.[6]

23. Administrative price stabilization measures, while helpful over the short run, cannot substitute for macroeconomic policies. Measures that target market inefficiencies and noncompetitive practices are always desirable, and the stepped-up efforts by the Fair Trade Commission are welcome. Other methods that suppress prices, such as moral suasion to freeze tuition and gasoline prices, can at best be temporarily effective. Such measures inevitably lead to distortions in resource allocation by creating a wedge between market costs and prices, and can be a burden on public finances. As a result, they cannot substitute for macroeconomic policies to rein in aggregate demand pressures or contain inflation expectations.

24. The commercial banking system remains sound, liquid and well capitalized, but residual risks in the MSBs require immediate attention and action.[7] Notwithstanding improved financial indicators, the commercial banking system still remains vulnerable to a global liquidity crunch and a possible deterioration in the quality of SME loans, which constitute 45 percent of bank lending. Although MSBs do not pose systemic risks, further delays in addressing their long standing weaknesses could further undermine depositors' confidence.[8] The recent plans for due diligence on MSBs' assets, beginning with project finance loans, and improvements in their governance, are welcome. These would need to be followed up by decisive restructuring of the industry, while ensuring the protection of insured deposits. There is also a need to enhance their supervision, and improve their credit and liquidity risk management.

25. The rising indebtedness of households does not constrain macroeconomic policies at this stage. Household debt has been steadily rising since the late 1990s, reflecting numerous structural factors including financial development and expectations of steady house price appreciation. However, debt service as a share of disposable income on the whole remains manageable, and rising interest rates do not pose the risk of systemic debt distress. Nevertheless, less creditworthy and poorer

[6] Korea is the world's seventh largest holder of international reserves as of June, which amount to US$304 billion.

[7] Staff analysis suggests that the default of a large commercial bank would not cause systemic spillovers through the direct exposure of banks to each other.

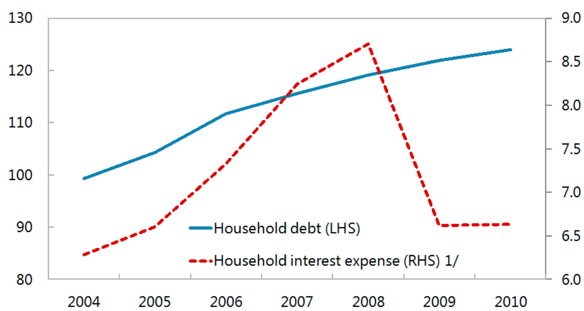
(continued)

See forthcoming IMF Working Paper "Financial Linkages across Korean Banks" by B. Aydin, M. Kim and H. Moon.

[8] There are 98 MSBs in operation, which account for less than 3 percent of the total banking system assets.

households may suffer disproportionately from higher debt service costs. Hence, recent plans to address debt servicing capacity of low-income households as well as broader plans to limit household indebtedness are welcome.

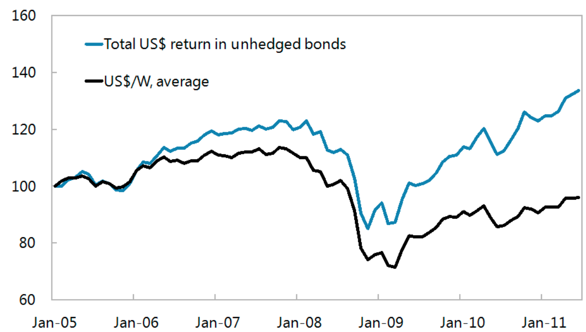
Household Debt and Interest Expense to Disposable Income
(In percent)



Sources: CEIC Data Company; Bank of Korea; and IMF staff estimates.
1/ Interest rate is the weighted average of commercial and specialized banks only.

26. Capital flow measures need to be supported by appropriate macroeconomic policies and exchange rate flexibility to address capital flow volatility concerns. The limits on foreign currency derivatives have contributed to containing banks' short-term debt below pre-crisis levels, although the trends in shipbuilding orders and the associated need for hedging have also played a role. The withholding tax does not appear to have substantially stemmed bond inflows, as strong growth and an undervalued exchange rate have provided a stronger pull factor. For portfolio equity flows, which are much larger than bond inflows, monetary tightening would discourage additional inflows by lowering earnings expectations. For bond flows, policy tightening would impose capital losses on bondholders, especially if accompanied by greater exchange rate flexibility that eliminates the perceived one-way bet on the currency.

Bond Inflows
(Jan. 2005=100)



Sources: J.P. Morgan; and CEIC Data Company Ltd.

The Authorities' Views

27. Containing inflation is the authorities' top policy priority. The authorities considered the rise in inflation in the first half of 2011 to be mainly due to supply side pressures, and saw administrative price stabilization measures as an effective tool. The BOK estimated that these measures will reduce headline inflation by 0.4 percentage points in 2011. They, however, acknowledged that upward adjustments in administered prices would be needed to limit quasi-fiscal costs and the inefficient use of energy. The authorities expect supply-side pressures to subside in the second half of 2011, with demand pressures contributing more to inflation pressures, as reflected in the BOK's outlook for core inflation. Nevertheless, the BOK favors a cautious approach to monetary tightening in light of risks to the global outlook and high household indebtedness.

28. The government plans to adhere to the fiscal rule consistent with medium-term

consolidation plans. In this regard, measures are already underway to broaden the base of some taxes by reducing tax exemptions and further enhancing compliance. On the expenditure side, the authorities plan to strengthen fiscal discipline, streamline subsidies and economic policy related expenditures. For 2011, expenditure growth would be limited to 5.5 percent. The authorities noted that there is limited room for further savings in 2011, given that the National Finance Act requires some mandatory spending of revenue overperformance, by allocating 40 percent of the additional revenue to local governments, while 18 percent of revenue overperformance is mandated to go toward debt redemption.

29. The authorities considered that the exchange rate is freely determined in the market and that interventions are limited to smoothing operations. They pointed to the 3.7 percent appreciation against the U.S. dollar so far this year and underscored that in assessing the adequate level of reserves for Korea, geopolitical risks on the peninsula should also be taken into account, in addition to the coverage of short-term debt.

30. The authorities are gearing up to swiftly resolve MSBs' problems. They viewed the envelope of planned measures as sufficient to address the MSBs' immediate balance sheet weaknesses arising from their exposure to the construction and real estate sector. They also noted that the PFS bank would help limit the spillovers to commercial banks from their lending to construction and real estate companies that also have loans from MSBs, in addition to facilitating bank-led restructuring. They highlighted plans to strengthen MSB supervision by stronger fit and proper tests, tighten single exposure limits, and introduce more frequent reporting requirements.

31. The authorities considered the capital flow measures as useful in changing the composition of inflows and limiting the rise of short-term external debt. They noted that the initial limits on foreign bank branches' forward derivative positions were binding, and helped decrease their short-term debt. They attributed the strong fundamentals of the Korean economy as the reason for foreign banks to commit additional capital to their Korean branches and the recent increase in short-term debt (prompting a tightening of the limits). In addition, domestic corporate issuance of foreign currency-denominated "Kimchi" bonds also contributed to the rise in short-term foreign currency debt. The authorities plan to close the loopholes related to "Kimchi" bonds and will continue reviewing forward position limits each quarter. They also noted that some positions have shifted to the offshore nondeliverable forward (NDF) market owing to market expectations of currency appreciation. The authorities considered the reinstatement of the withholding tax as contributing to a shift toward longer-term bond inflows, while acknowledging that the recent decline in overall bond inflows has coincided with a global easing of capital flows, making it difficult to isolate the effect of the tax. They expected capital inflows to continue, and in light of heightened financial risks from Europe, remain concerned about capital flow volatility.

POLICY THEME #2—A ROADMAP FOR A MORE RESILIENT ECONOMY

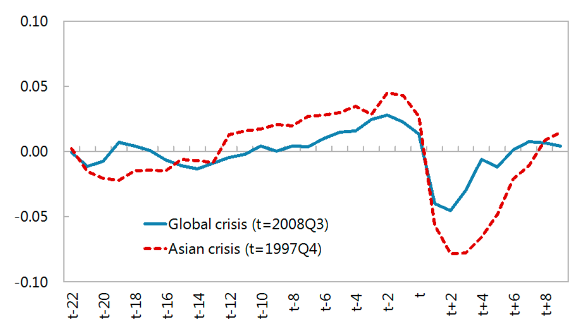
Notwithstanding the impressive rebound from the global financial crisis, the Korean economy remains vulnerable to global shocks through trade and financial linkages. Enhancing the macrofinancial policy framework would be an essential step toward ensuring the resilience of the economy. This requires better internalizing macrofinancial linkages and the cross-sectoral impact of macroeconomic and macroprudential policies (MaPPs). Another important step is to strengthen the nontradables sector as a second engine of growth to reduce the economy's vulnerability to external shocks, address longer-term challenges, and help growth become more equitable.

A. Adapting the Macrofinancial Framework to Medium-Term Challenges

Background

32. Korea's experience during the recent global crisis has underscored that cross-border and sectoral linkages are important channels for the propagation of shocks. Despite strong fundamentals, the economy was severely affected by shocks originating elsewhere and the transmission of shocks across sectors. Indeed, the Korean economy experienced a sizeable downturn during 2008-09. This has highlighted the need to internalize macrofinancial linkages within the monetary policy framework and support macroeconomic policies with a coherent set of MaPPs, to bolster economic and financial stability.

The Impact of Crises: 1997 and 2008 1/



Source: Bank of Korea.
1/ The data shows logarithmic deviations of real GDP from its HP-filtered trend.

33. Monetary policy has largely been conducted using a conventional inflation targeting framework. The BOK has adhered to its mandate of price stability, while at times monetary policy has also paid attention to other developments, such as house prices and high household indebtedness. However, as is common practice, the BOK has not incorporated financial stability considerations in a more systematic way into its policy making framework. These concerns have largely been addressed through other policies, with monetary policy being less preemptive to the buildup of leverage over the cycle, and before it becomes evident in real economic activity.

34. Korea has been actively implementing targeted policies to respond to various financial stability concerns over the past decade. For example, regulations on mortgage lending have been in place since the mid-2000s, along with other housing market policies, to contain household leverage and prevent house price bubbles. After the recent crisis, new MaPPs were introduced to address banks' reliance on wholesale funding and to limit their external short-term debt from rising excessively. In line with these initiatives, efforts to enhance institutional cooperation have been stepped up.[9]

35. Korea's traditionally strong fiscal position served it well during the crisis, but there are several long-term challenges. The authorities' medium-term fiscal framework for 2010–14 is defined by the National Fiscal Management Plan and the National Debt Management Plan, which set fiscal balance and debt targets and identify spending priorities under the fiscal rule although specific measures to contain expenditure growth are not spelled out. Looking beyond the next three years, there are several fiscal challenges. The central government faces contingent liabilities associated with loan guarantees (3 percent of GDP) and the rise of public enterprise debt in recent years (to 23 percent of GDP), linked primarily to the real estate sector.[10] Looking ahead, with a rapidly aging population, healthcare and pension expenditures are expected to increase by 11 percent of GDP in 50 years (almost three times faster than that of the G7 average), requiring adjustment in fiscal policies beyond medium-term consolidation. In addition, the National Pension Fund, which is currently in surplus, is projected by the authorities to be depleted by 2060 under current policies.

Staff's Views

36. An enhanced macrofinancial framework that better harmonizes macroeconomic and financial policies would help enhance the economy's resilience. The main objectives of the enhanced macrofinancial policy framework should be to keep GDP in line with its potential, ensure that growth is equitable and

[9] The BOK, the Financial Services Commission, the Financial Supervisory Service (FSS) and the Korea Deposit Insurance Corporation signed a Memorandum of Understanding to address gaps in information sharing. Regular meetings are held with these agencies and the MOSF to improve policy coordination.

[10] While the debt of KLHC alone rose from 4 percent of GDP in 2005 to around 10 percent in 2010, going forward, administrative price stabilization measures, if sustained, could also increase quasi-fiscal losses at public enterprises.

sustainable, contain inflation within the target, and preserve financial stability. The main tools within this framework are monetary, fiscal, and exchange rate policies, complemented with MaPPs. The setting of these policies will need to ensure internal consistency to avoid building up vulnerabilities over the medium term.

37. Internalizing financial stability considerations in interest rate decisions would improve Korea's ability to respond to shocks. Staff analysis shows that, within the existing inflation targeting framework, making the BOK's interest rate policy responsive to systemic financial stability indicators would help Korea dampen the effects of financial shocks on the real economy.[11] While price stability remains the goal, this framework would also help avoid the buildup of balance sheet vulnerabilities in addition to achieving better outcomes for the BOK's objective. In practice, the BOK already keeps an eye on factors such as leverage, and this approach can help more rigorously formalize the BOK's inflation targeting framework. Incorporating financial stability indicators such as asset prices, nonfinancial sector borrowing spreads, foreign exchange leverage of the financial sector or overall credit in an enhanced policy rule can better support the Monetary Policy Commmittee's deliberations.

[11] See forthcoming IMF Working Paper by B. Aydin and E. Volkan, "Incorporating Financial Stability into an Inflation Targeting Framework."

38. Incorporating MaPPs within the overall macrofinancial framework would better align them with the broader macroeconomic context in containing systemic risks and addressing vulnerabilities. Acknowledging that conventional macroeconomic policies alone cannot effectively address all financial stability concerns, MaPPs are a necessary complement to these policies. Incorporating them into a consistent framework would better align competing objectives and avoid temptations to substitute MaPPs for appropriate macroeconomic policies:

- **Capital flow measures can be more effective if supported by appropriate monetary policy and exchange rate settings.** Despite recent measures, capital flow volatility is likely to remain a concern. However, the efficacy of measures targeting specific components of capital flows would be limited as long as the profit incentives for circumvention remain, requiring an ever widening and unwieldly set of additional measures to close loopholes. For example, capital flow measures would be more effective if the perceived one-way bet on the currency is eliminated.

- **The objective of housing market policies should be to avoid the buildup of excess leverage (Box 2).** The outcome of past policies has been to engender expectations of steady nominal house price appreciation. As a result, these policies have not been successful in containing excessive leverage and have contributed to the rising indebtedness of households, the construction and real estate SME sector, and public enterprises such as KLHC. In light of looming shifts in demand due to demographic changes, allowing more room for market forces to allocate resources would prevent a mismatch between housing supply and demand.

39. Enhancing the fiscal framework would better anchor fiscal policies to Korea's medium- and long-term liabilities. Publishing more detailed plans on policies needed to achieve medium-term fiscal targets would help enhance transparency. Currently, the projected increase in mandatory expenditures implies little flexibility to adjust discretionary spending and would make revenue measures a necessary component of consolidation plans. These could include broadening of the tax bases for income and corporate taxes, with scope to raise the VAT rate and social security and health care contributions. Linking medium-term fiscal targets to future liabilities—including those related to aging and public enterprise debt—through a structural fiscal rule that targets the general government budget would help ensure that the fiscal objectives are consistent with long-term sustainability. While individual and occupational pension schemes are also important to support retirees, further reforms of the public pension system should also be considered to ensure long-term sustainability of the pension fund as the population ages. Addressing the growing debt of public enterprises would require a shift away from targeting secondary objectives, such as supporting house prices and administrative price measures, and from commercial activities. Overall, the authorities' planned move to a general government budget framework would help improve fiscal transparency and prioritization of policies.

The Authorities' Views

40. The authorities broadly concurred with staff views on enhancing the macrofinancial framework. The BOK considered that incorporating financial stability into its inflation targeting framework merits internal discussions. The BOK also viewed the pending revision to the BOK Act granting it additional powers as a first step toward realigning institutional responsibilities. They also saw MaPPs as complements rather than substitutes to macroeconomic policy. More broadly, the authorities considered close cooperation among key government agencies essential to ensure a consistent mix of macrofinancial policies. As an example, they noted multi-pronged plans to address rising household debt, including by increasing high-quality job opportunities in the nontradables sector to improve debt servicing capacity. In addition, they planned to strengthen supervision of household lending and encourage fixed-rate amortizing mortgages, including through promotion of mortgage-backed securities to help improve the risk profile of households. They also noted plans to introduce tighter leverage limits on credit card companies to curtail excessive growth of consumer credit.

41. **On managing capital flows, the authorities saw little room for macroeconomic policies to address capital flow volatility.** The authorities considered the inflows to be driven by ample global liquidity and exchange rates as flexible. Hence, the options for macroeconomic policy adjustments to stem capital flow volatility were seen as limited.

42. **On housing policies, the authorities viewed managing price volatility and transaction volumes as essential to macroeconomic management over the cycle.** They saw house price stability as playing a central role in sustaining consumer confidence and hence needing to be closely monitored. To better address potential supply-demand imbalances going forward, they planned to incorporate in their new development projects the changing housing needs of an aging population and increasing single-person households.

43. **The authorities emphasized their goal of maintaining Korea's strong track-record of fiscal soundness over the medium and long term.** They noted that the National Fiscal Management Plan is designed to achieve budget balance, excluding social security, by 2013–14 through broadening of tax bases and expenditure restructuring, and would not require raising tax rates or social security contributions. They noted that the latter two would only be needed to accommodate any increases in social spending. The authorities reiterated their preference for a small government and highlighted the role of individual and occupational pension schemes to alleviate old-age poverty, rather than a reliance on the public pension fund. They also noted plans for the privatization and resolution of public enterprises.

B. Rebalancing the Economy to Ensure Sustainable and Equitable Growth

Background

44. **Korea has benefited from its export-led growth model, but relying mainly on a single engine of growth makes the economy vulnerable to shocks and contributes to rising social disparities.** As demonstrated by the global crisis, high export-dependence makes the economy vulnerable to developments elsewhere. Export-supportive policies have also left a large productivity gap in the nontradables sector and subdued the growth of household incomes. As a result, they have contributed to increasing household and

SME indebtedness and rising income inequality (Box 3).

Staff's Views

45. As in many other Asian economies, a second engine of growth is needed to improve economic diversification and address social disparities. Making the nontradables sector an additional engine of growth would increase the contribution of domestic demand to growth and diminish the impact of adverse external shocks.[12] Considering that 70 percent of employment is in the nontradables sector, supporting productivity growth in this sector will help support household incomes, reduce high levels of indebtedness relative to disposable incomes, and reduce the economic polarization between the manufacturing and services sectors.

46. Rebalancing the sources of growth will require action on multiple fronts. A stronger exchange rate is essential to invigorate the nontradables sector, support household income growth for those employed in that sector, and help reduce indebtedness of households and SMEs. Expediting bank-led SME restructuring would support productivity growth in the nontradables sector. This should be accompanied by scaling back SME guarantees to international norms to encourage banks to make loans on the basis of risk assessments. It also remains important to open the nontradables sector to more competition and create a more conducive investment climate, and level the playing field with manufacturing by eliminating the preferential treatment of the tradables sector in policies.

[12] Staff's medium-term projections of a declining current account surplus assume a greater role for rebalancing.

47. Labor market policies should address dualities and raise formal participation rates. Increasing high value-added employment opportunities in the nontradables sector would help address labor market dualities between the regular and nonregular workers. Transitioning from the seniority to performance-based pay system would extend the duration of formal employment for the elderly, while expanding the coverage of social safety net would help arrest the growth in old-age poverty. There is also room to increase the labor force participation of females to help counter the aging-related decline in the labor force.

The Authorities' Views

48. The authorities have begun addressing these medium-term challenges, including through their commitments under the G20 Mutual Assessment Process. Policies are broadly aimed at creating a more equal playing field between services and manufacturing, by increasing the tax incentives for the former to the same level as in manufacturing. The authorities also highlighted their vision for shared growth, by encouraging large conglomerates to support their SME suppliers through preferential loans, joint R&D projects, and sharing of profits. Labor market policies will focus on encouraging flexible work hours and part-time employment to increase the share of females and the elderly in the labor force, and investment in high-quality labor-intensive industries. The authorities noted that supporting the incomes of the elderly can be achieved through alternatives to increasing the pension replacement rate, such as strengthening occupation and individual pension systems. They also noted that they have introduced a "Basic Old-Age Pension" scheme to provide benefits for those over 65. To address growing dualities in the economy, they noted that any expansion of the social safety net would need to be financially sustainable, better tailored to those in need, and targeted efficiently. Accordingly, they plan to support the livelihoods of low-income households, university students and elderly farmers and fishermen.

STAFF APPRAISAL

49. **Following a rapid recovery in the aftermath of the global financial crisis, the Korean economy has transitioned to a robust expansion since the second half of 2010.** Supported by strong export growth and robust domestic demand, growth in 2011 is projected above potential at 4½ percent, moderating to 4.2 percent next year. Risks to the outlook remain broadly balanced. Price pressures are expected to remain elevated, with inflation projected to average 4.3 percent in 2011, above the BOK's 2–4 percent target, before easing to 3.6 percent in 2012.

50. **The immediate policy priority is to address inflation pressures and limit the further buildup of vulnerabilities.** Although the 125 bps cumulative hike in the policy rate thus far is welcome, monetary conditions are accommodative for the stage of the cycle. With both output and its rate of growth above their estimated potential, real interest rates need to rise further to bring inflation within the target band, thereby safeguarding the BOK's credibility, and to discourage further leverage. Although those measures that target market inefficiencies are desirable, administrative price stabilization measures cannot substitute for appropriate macroeconomic policy settings to address aggregate demand pressures. Moreover, household debt at its current level is manageable and does not constrain monetary policy. The recently announced plans to limit household debt and improve debt servicing capacity are welcome.

51. **The neutral fiscal stance remains appropriate for now, with some room to tighten policies further.** To complement

monetary tightening in addressing aggregate demand pressures, any revenue overperformance this year that is not mandated to be shared with local governments should be saved and the fiscal costs of administrative price measures should be offset through other expenditure savings. The authorities should also stand ready to accelerate medium-term consolidation in 2012–13 should aggregate demand pressures persist.

52. Greater two-way flexibility of the exchange rate is needed to support the monetary policy response to inflation and help alleviate capital inflow pressures. The staff assesses the REER as 10 percent weaker than implied by fundamentals, based on the CGER estimates, suggesting that greater exchange rate flexibility could play a more prominent role in helping tighten monetary conditions.

53. The overall banking system is strong, but weak MSBs require attention to contain residual risks. Although the MSBs do not pose systemic risks, and while the recent plans to resolve their immediate balance sheet weaknesses are welcome, their long standing fragility should be addressed with decisive restructuring, while ensuring the protection of insured depositors. There is also a need to enhance their supervision and improve their credit and liquidity risk management.

54. There is room to further enhance the overall macroeconomic and financial policy framework to bolster the resilience of the economy to shocks. Notwithstanding the impressive rebound from the global financial crisis, the Korean economy remains vulnerable to shocks through trade and financial linkages. In this regard, policy frameworks could better internalize macrofinancial linkages to ensure that macroeconomic and financial policies are applied consistently and avoid the buildup of vulnerabilities.

55. The monetary policy framework could be strengthened by incorporating financial stability considerations in interest rate decisions. Within the existing inflation targeting framework, making the BOK's interest rate policy more responsive to systemic financial stability indicators would help limit the impact of financial shocks on the overall economy and help prevent the buildup of financial vulnerabilities.

56. Incorporating MaPPs within the macrofinancial policy framework would make these policies more effective. Acknowledging that conventional macroeconomic policies alone cannot address all financial stability concerns, MaPPs are a necessary complement to appropriate macroeconomic policies. The authorities' valid concern about continued capital flow volatility could be better addressed if capital flow measures are accompanied by appropriate macroeconomic policies, including greater two-way exchange rate flexibility. Implementation of MaPPs should also remain alert to the incentives to shift activities outside the regulatory perimeter.

57. Housing policies also have a role to play in the macrofinancial framework to contain leverage and prevent asset price bubbles. Housing policies should not encourage expectations of sustained house price appreciation, as it would incentivize households to increase their leverage. Recently announced plans to encourage fixed-rate amortizing mortgages and limit excessive mortgage lending are welcome. Finally, in light of shifts in demand due to demographic changes, allowing more room to market forces would also prevent a mismatch between housing supply and demand.

58. Given Korea's long-term fiscal challenges due to aging, its well-established fiscal prudence can be enhanced by formalizing the fiscal framework to better anchor policies. Over the longer term, the large projected increases in mandatory spending would make relying only on expenditure restraint difficult. This would require measures to broaden the bases of corporate and income taxes, with scope to raise the VAT rate and the social security, and health care contributions. A reallocation of spending from economic policy measures toward the social safety net would help address growing social disparities. A more formal fiscal rule targeting the structural budget of the general government would better link medium-term fiscal targets to future liabilities—including those related to aging and public enterprise debt—and provide more countercyclical room. Addressing risks from increasing public enterprise debt would require refocusing their activities and privatization of their commercial activities. Additional pension reforms should also be considered to ensure long-term sustainability of the pension fund.

59. Enhancing the role of the nontradables sector as a second engine of growth will help address growing social disparities and improve the economy's resilience to external shocks. Rebalancing the economy by strengthening the nontradables sector, which employs the majority of the labor force, would support household income growth, and help reduce indebtedness. Expediting bank-led SME restructuring would assist productivity growth and should be accompanied by scaling back SME guarantees to international norms. It remains also important to open the nontradables sector to more competition and creating a more conducive investment climate, and level the playing field with manufacturing by eliminating the preferential treatment of the latter. In addition, greater two-way flexibility of the exchange rate would support efforts at rebalancing the economy. Increasing employment opportunities in the nontradables sector would help address dualities in the labor market. Transitioning from the seniority system to performance-based pay would extend the duration of formal employment for the elderly, while extending the coverage of the social safety net would lessen old-age poverty. There is also room to increase the labor force participation of females.

60. It is recommended that the next Article IV consultation takes place on the standard 12-month cycle.

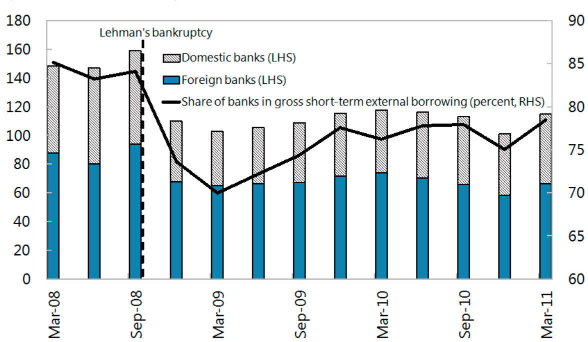
Box 1. Capital Flow Measures in Korea[1]

After the global crisis, Korea introduced several measures to improve the resilience of the financial sector to risks from volatile capital inflows. The authorities aimed to address two main concerns: (i) persistent inflows could increase vulnerabilities in the financial sector and lead to excessive exchange rate volatility, and (ii) short-term inflows may turn into a destabilizing "sudden stop" as experienced during the crisis:

- Measures introduced in November 2009 aimed at reducing the foreign currency maturity mismatch of banks, improving the quality of liquid assets, reducing wholesale and short-term external debt funding, and limiting the foreign currency (fx) borrowing of the corporate sector.
- The June 2010 measures further tightened the regulation on banks' fx maturity mismatch and leverage in the corporate sector. Ceilings on banks' fx derivative contracts relative to capital and restrictions on firms' fx financing were introduced.
- In January 2011, a withholding tax on nonresident purchases of Treasury and Monetary Stabilization Bonds was reintroduced. The current rate does not discriminate against nonresidents, but it can be adjusted depending on the inflows.
- In April 2011, a macroprudential stability levy was introduced, effective from August 2011, on the non-core fx liabilities of banks. The levy is adjustable, with a maximum of 100 bps.
- Measures introduced in May 2011 further reduced banks' fx derivative ceiling, effective from June 2011.

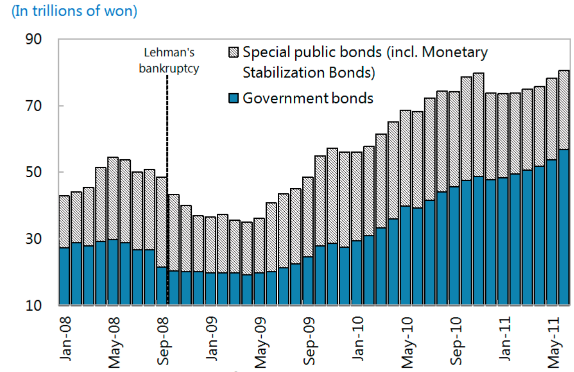
Measures targeting the banking system's vulnerabilities appear to be more effective than those aimed at reducing bond inflows. The set of measures targeting the excess buildup of fx leverage appears to have prevented banks' outstanding short-term debt from returning to pre-crisis levels. However, changes in shipbuilders' demand for fx hedges through forward contracts also contributed to these shifts. Measures intended to reduce bond inflows, on the other hand, do not seem to have had enduring effects. Even though foreign investment in public bonds is lower than its January level, this also reflects the rise in inflation expectations and an overall decline in capital inflows to emerging markets.

External Debt
(In billions of U.S. dollars)



Source: CEIC Data Company Ltd.

Foreign Investment in Bonds
(In trillions of won)



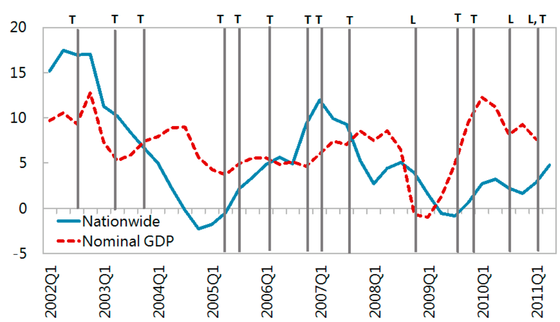
Source: CEIC Data Company Ltd.

[1] Prepared by Burcu Aydin.

Box 2. The Korean Housing Market Policies: Price Stability at a Cost[1]

The Korean government has actively pursued housing market policies with multiple objectives. The toolkit has comprised of prudential measures such as loan-to-value (LTV) and debt-to-income (DTI) limits, introduced in 2002 and 2005, respectively, as well as other measures to manage the demand and supply of housing. These include adjustments to taxes on housing transactions and capital gains, subsidized financing, purchases of unsold houses, support to the construction sector, and moral suasion on lenders. Historical house price dynamics indicate that these measures have limited movements of nationwide house prices between zero and the rate of growth of nominal GDP. Other priorities have at various times been to limit household indebtedness, support real estate and construction SMEs, and maintain consumer confidence. More recently, plans have been announced to improve household balance sheets, such as by encouraging fixed-rate amortizing mortgages.

Korea: Housing Prices
(Year-on-year percent change)

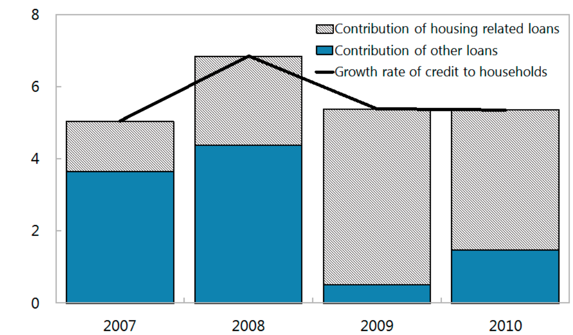


Note: "T" denotes tightening and "L" denotes loosening in LTV and DTI measures.
Source: CEIC Database Company Ltd.

While these policies have largely succeeded in managing house price dynamics, they have contributed to the buildup of vulnerabilities in both public and private sector balance sheets:

- **Households:** Despite the stringent LTV and DTI regulations, entrenched expectations of steady house price appreciation have made housing an attractive investment and source of collateralized credit for uses other than housing. These policies have contributed to rising household leverage and a preference for short-term floating rate bullet mortgages, most of which are rolled over on a three-year basis.

Credit to Households by Commercial and Specialized Banks
(Percent)



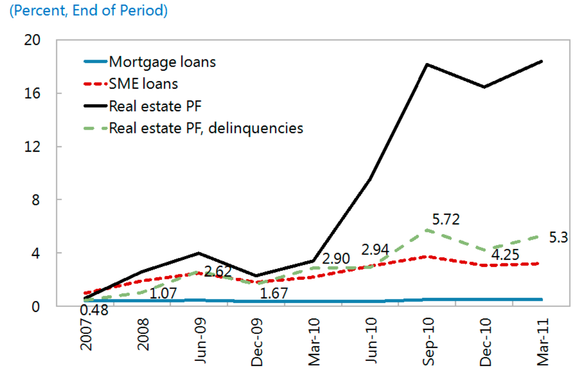
Source: CEIC Data Company Ltd.

- **Construction and real estate SMEs:** Steady house price appreciation and purchases of unsold houses have encouraged overexpansion and excessive leverage among SMEs in the sector, and severe balance sheet problems in recent years.

- **Financial institutions:** While banks' exposure to households' credit risk is contained through LTV and DTI limits, excessive leverage in the construction and real estate SMEs has created distress among MSBs that are heavily engaged in project financing.

- **Quasi-fiscal costs:** Housing market policies have contributed to the rapid buildup of leverage of KLHC, whose debt-to-equity ratio tripled from 2007 to end-2010 to around 559 percent.

Domestic Banks' Substandard or Below Loans
(Percent, End of Period)



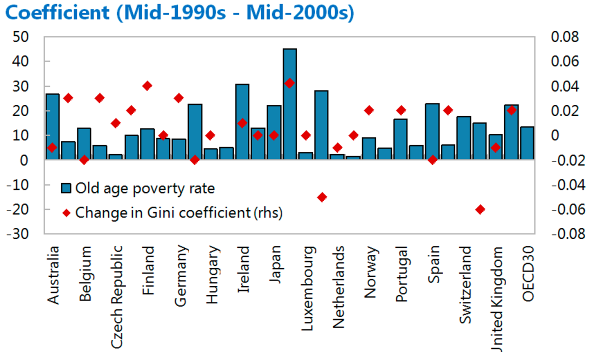
Source: FSS.

[1] Prepared by Burcu Aydin.

Box 3. The Social Cost of Not Rebalancing: Rising Income Inequality in Korea[1]

Income inequality in Korea increased faster than the OECD average over the past decade. The Gini coefficient rose by 5½ percentage points during 1997–2008, driven mostly by rising old age poverty, before flattening out in 2009 and slightly improving in 2010. Although rising income inequality is a global phenomenon, in Korea it is closely linked to the economic polarization between those that work in the tradables (mostly manufacturing) sector and those in the nontradables (mostly services) sector, and labor market practices:

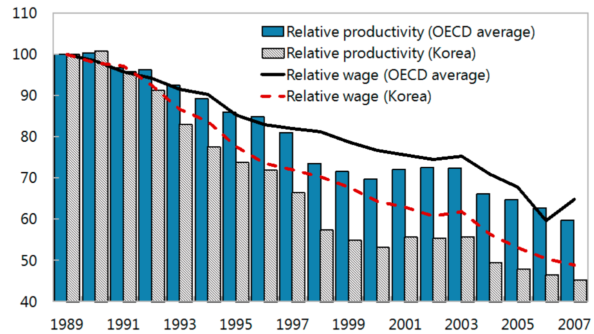
Old Age Poverty Rate (2005) and Change in Gini Coefficient (Mid-1990s - Mid-2000s)



Sources: OECD Income Distribution database; and Professor Kyunsoo Choi of Korea Development Institute.

- The workers in the nontradables sector fell behind due to the faster decline in relative productivity compared with the OECD average. While the manufacturing sector went through significant restructuring in the aftermath of the Asian crisis, the nontradables sector has not undergone any comparable restructuring. Moreover, there has been a shift in labor from manufacturing to services since the crisis. The services sector now accounts for around 70 percent of employment, most of which is in SMEs, translating into weak income growth for a large segment of the working population.

Relative Productivity and Wages: Services v.s. Manufacturing
(1989=100)

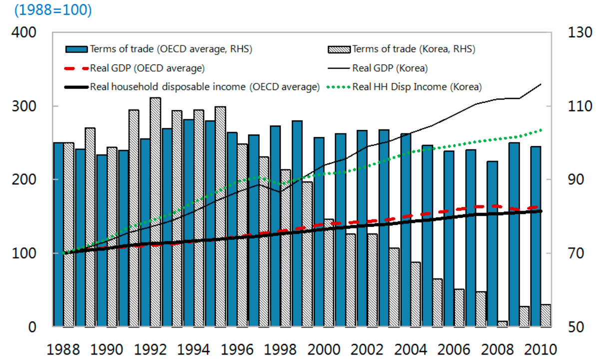


Source: OECD STAN database.

- The deteriorating terms of trade have arguably contributed to around 30 percent of the wedge between real GDP and real household income growth.[2] In contrast, for the OECD as a whole, they have grown at the same pace, accompanied by flat terms of trade.

- The share of nonregular workers grew from 17 to 29 percent of total employment during 2001–06, the fastest in the OECD. Moreover, compared to the OECD average, nonregular workers are more concentrated in the nontradables sector, include more women, and have three times more workers aged above 55. Labor market duality has implications for the welfare of nonregular workers, as they face substantially higher income volatility, and are less likely to be covered by the social safety net.

Terms of Trade, GDP, and Household Income
(1988=100)



Sources: CEIC Data Company Ltd; and IMF, WEO database.

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[1] Prepared by Huidan Lin.

[2] It is estimated that on average a 1 percent decline in the relative price of imports (exports) raises (lowers) real total labor compensation by 0.5 (0.4) percent (IMF, April 2007, *World Economic Outlook*).

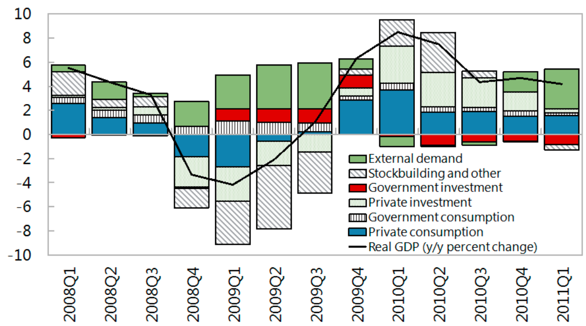
Figure 1. Korea – Expansion

The rebound has transitioned to a private demand-led expansion,...

...while a positive output gap and accommodative monetary conditions have contributed to inflation pressures, compounded further by supply-side shocks.

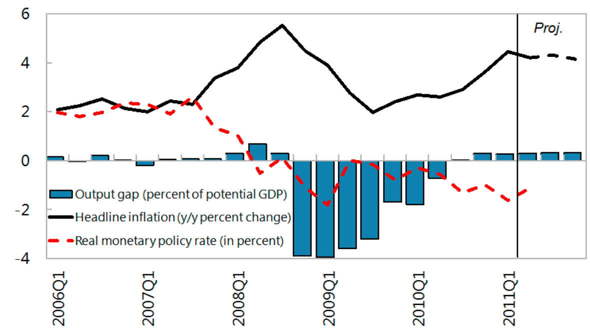
Contributions to GDP Growth

(Percent)



Source: CEIC Data Company Ltd.

Output Gap and Inflation



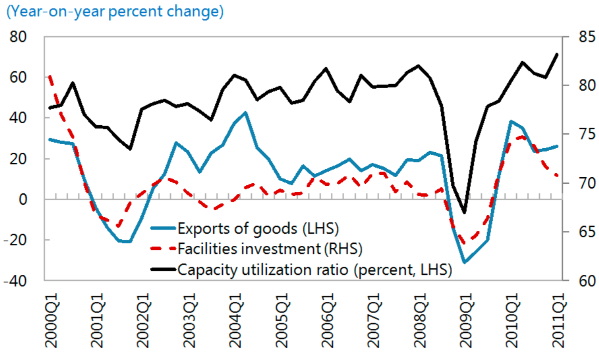
Sources: CEIC Data Company Ltd; and IMF staff calculations.

Notwithstanding the recent soft patch, buoyant exports and stretched capacity utilization suggest robust facilities investment going forward,...

...underpinned by robust business and consumer confidence.

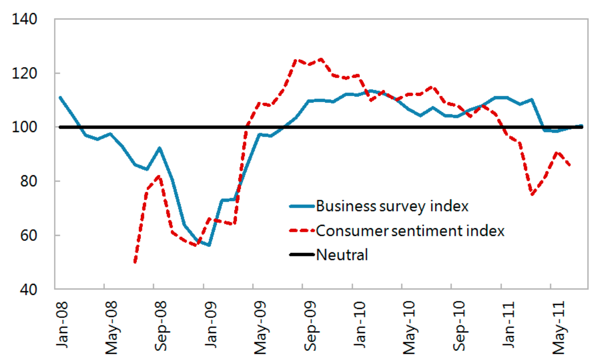
Exports and Facilities Investment

(Year-on-year percent change)



Source: CEIC Data Company Ltd.

Expectations of Future Economic Situations



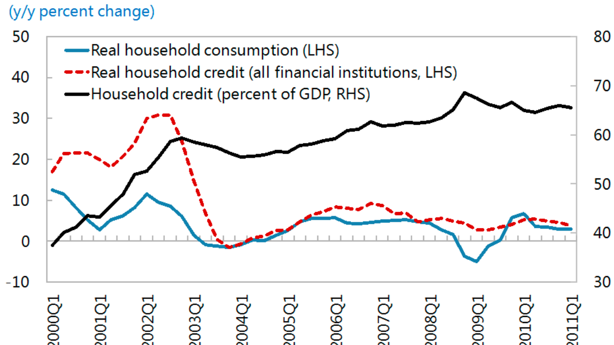
Source: CEIC Data Company Ltd.

Despite high household debt...

...firming labor market conditions are expected to support incomes and consumption.

Household Consumption and Credit

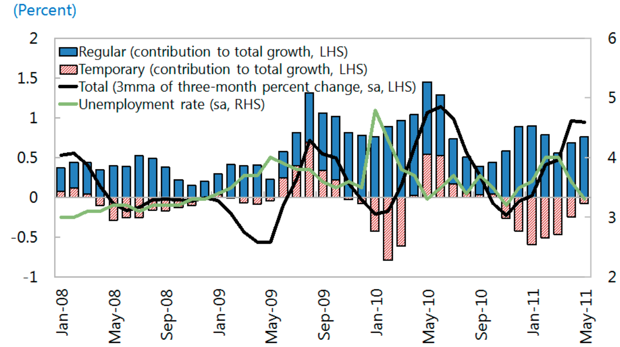
(y/y percent change)



Sources: CEIC Data Company Ltd; and IMF staff calculations.

Employment

(Percent)



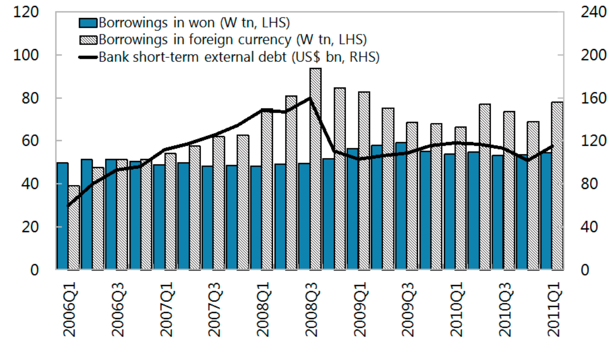
Source: CEIC Data Company Ltd.

Figure 2. Korea – Financial Markets

Macroprudential measures have helped contain banks' short-term fx and wholesale funding…

…but portfolio inflows remain robust.

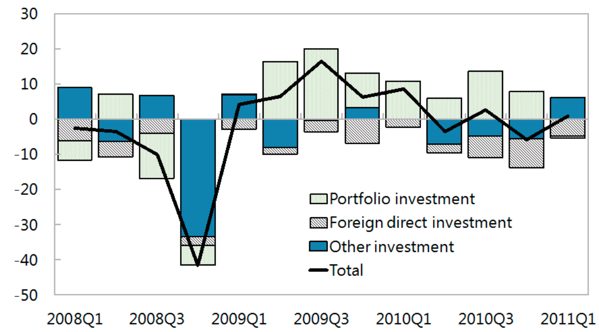
Banks Funding



Source: CEIC Data Company Ltd.

Net Capital Flows

(In billions of U.S. dollars)



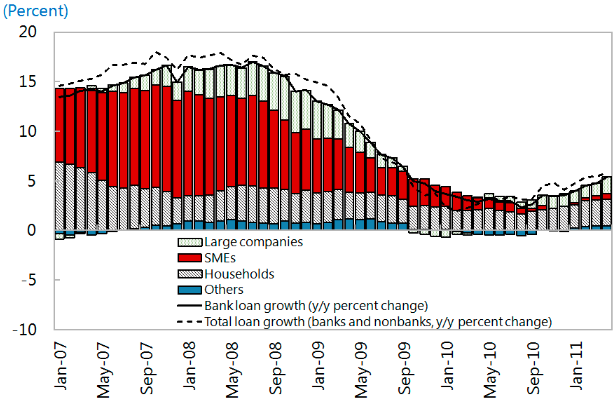
Sources: CEIC Data Company Ltd.; Bank of Korea; and IMF staff calculations.

Bank loan growth, especially to SMEs, moderated partly due to the macroprudential measures on bank financing…

…while nonbank institutions have supported robust credit growth to households.

Contribution to Bank Loan Growth

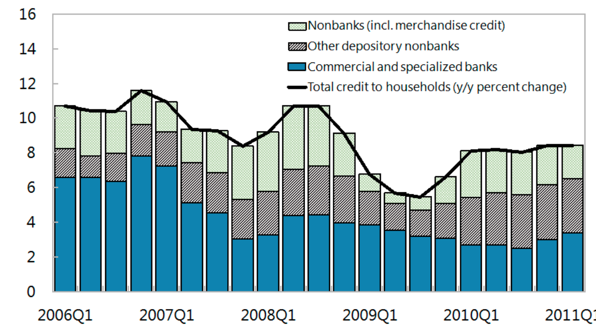
(Percent)



Source: CEIC Data Company Ltd.

Contribution to Household Credit 1/

(Percent)

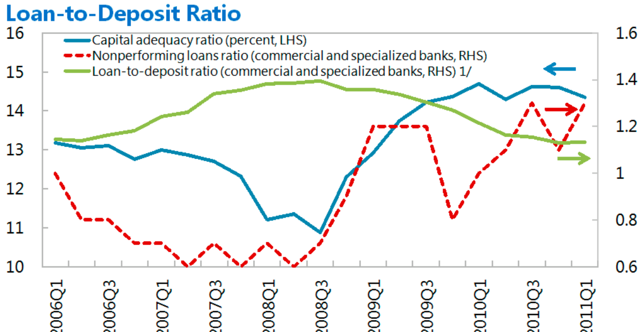


Source: CEIC Data Company Ltd.
1/ All financial institutions.

The banking sector remains sound…

…and the stock market is near all-time highs.

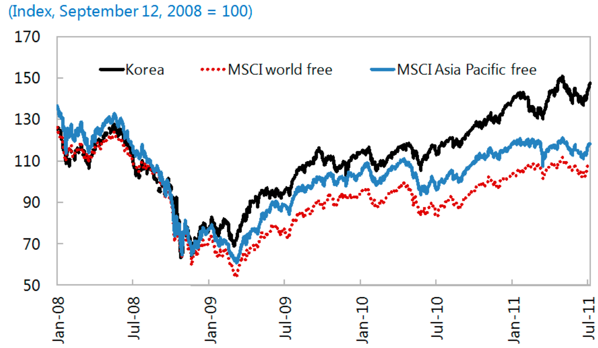
Capital Adequacy, Nonperforming Loans, and Loan-to-Deposit Ratio



Sources: CEIC Data Company Ltd; and FSS.
1/ Specialized banks are not subject to loan-to-deposit limit.

Stock Market Developments

(Index, September 12, 2008 = 100)

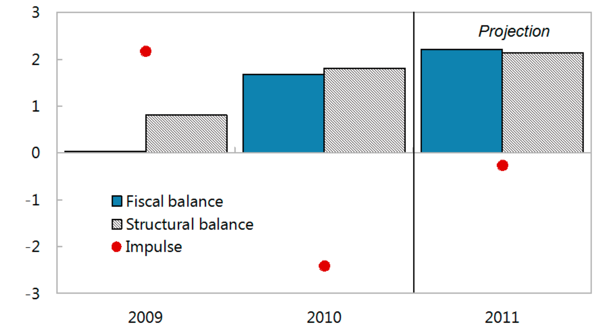


Source: Bloomberg LP.

Figure 3. Korea – Policy Settings

While the 2011 fiscal stance is broadly neutral,…

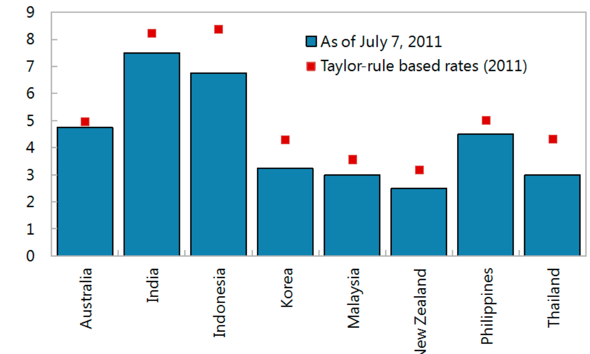
Fiscal Impulse
(In percent of GDP)



Sources: CEIC Data Company Ltd; and IMF staff calculations.

…monetary policy remains accommodative.

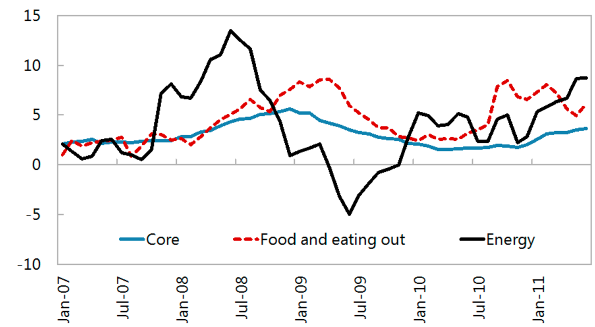
Selected Asia: Policy Interest Rate
(In percent)



Sources: CEIC Data Company Ltd.; and IMF staff estimates.

The second-round effects from earlier food and fuel price increases,…

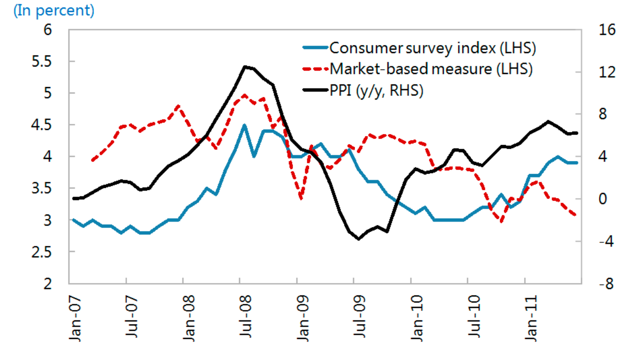
Inflation
(y/y percent change)



Source: CEIC Data Company Ltd.

…higher producer prices and inflation expectations are pointing to further inflation pressures.

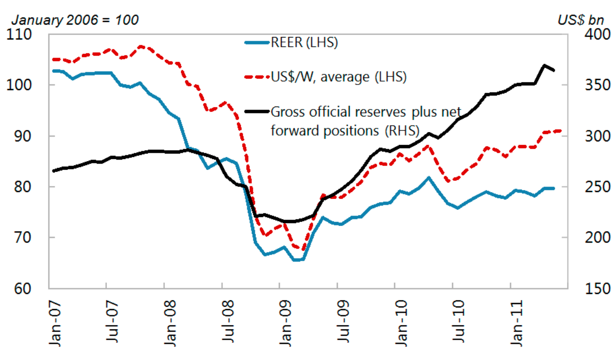
Expected Inflation (12-month Ahead)
(In percent)



Sources: CEIC Data Company Ltd; and Bloomberg LP.

Despite some recent appreciation, the REER remains well below pre-crisis levels.…

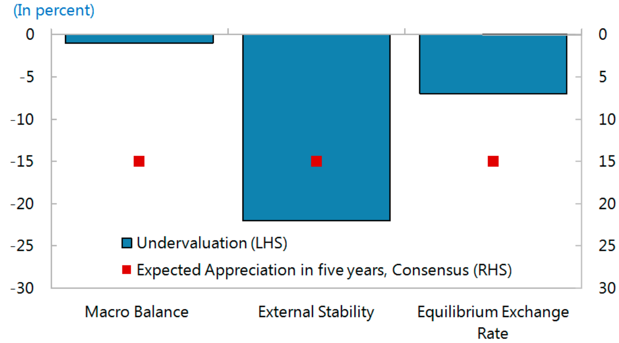
REER and Gross Official Reserves



Sources: CEIC Data Company Ltd; and IMF, Information Notice System.

…and is undervalued relative to fundamentals.

Real Effective Exchange Rate Undervaluation
(In percent)



Source: CGER.

Table 1. Korea: Selected Economic Indicators, 2007–12

Nominal GDP (2010): $1,014 billion
Main exports (percent of total, 2010): electronics (33), chemicals (10), vessels (10), machinery (9), steel (8) and automobiles (7).
GDP per capita (2010): $20,744
Net FDI outflows (2010): $19.4 billion
Central government debt (2010): 33.5 percent of GDP
External central government debt (2010): 2.6 percent of total central government debt

					Projections	
	2007	2008	2009	2010	2011	2012
Real GDP (percent change)	5.1	2.3	0.3	6.2	4.5	4.2
Total domestic demand	4.5	1.4	-2.7	6.0	4.6	4.0
Final domestic demand	4.9	0.8	0.6	4.8	4.6	4.0
Consumption	5.1	2.0	1.2	3.9	4.5	3.9
Gross fixed investment	4.2	-1.9	-1.0	7.0	4.7	4.2
Stock building 1/	-0.3	0.6	-3.1	1.0	0.0	0.0
Net foreign balance 1/	0.7	1.1	2.8	0.1	0.7	0.5
Nominal GDP (in trillions of won)	975.0	1,026.5	1,065.0	1,172.8	1,269.3	1,365.1
Saving and investment (in percent of GDP)						
Gross national saving	31.5	31.6	30.2	31.9	29.9	30.2
Gross domestic investment	29.4	31.2	26.3	29.2	28.7	29.1
Current account balance	2.1	0.3	3.9	2.8	1.1	1.0
Prices (percent change)						
CPI inflation (end of period)	3.6	4.1	2.8	3.5	4.1	3.2
CPI inflation (average)	2.5	4.7	2.8	3.0	4.3	3.6
Core inflation (average)	2.3	4.3	3.6	1.8	3.6	3.5
GDP deflator	2.1	2.9	3.4	3.7	3.5	3.2
Real effective exchange rate	-1.1	-19.9	-12.4	11.4	...	...
Trade (percent change)						
Export volume	10.4	6.8	0.1	16.2	11.5	11.1
Import volume	9.0	0.9	-2.2	16.8	10.8	11.7
Terms of trade	-2.5	-14.3	10.8	-0.9	-4.4	0.0
Consolidated central government (in percent of GDP)						
Revenue	24.2	24.0	23.0	22.9	22.9	22.8
Expenditure	21.9	22.4	23.0	21.2	20.7	20.4
Net lending (+) / borrowing (-)	2.3	1.6	0.0	1.7	2.2	2.4
Overall balance	3.5	1.2	-1.7	1.4	1.9	2.1
Excluding Social Security Funds	0.4	-1.5	-4.1	-1.1	-0.6	-0.3
Money and credit (end of period)						
Overnight call rate 2/	5.0	2.9	2.0	2.5	3.3	...
Three-year AA- corporate bond yield 2/	6.8	7.7	5.5	4.3	4.4	...
M3 growth 3/	10.0	9.1	9.4	5.9	4.7	...
Balance of payments (in billions of U.S. dollars)						
Exports, f.o.b.	389.6	434.7	358.2	464.3	523.9	589.7
Imports, f.o.b.	352.4	429.5	320.3	422.4	495.5	560.2
Oil imports	60.3	85.9	53.2	72.1	101.4	104.4
Current account balance	21.8	3.2	32.8	28.2	13.2	13.0
Gross international reserves (end of period)	262.1	201.1	269.9	291.5	316.2	339.7
In percent of short-term debt (residual maturity)	136.9	111.7	146.3	166.1	174.5	181.5
External debt (in billions of U.S. dollars)						
Total external debt (end of period)	333.4	317.4	345.4	360.0	379.0	399.0
Of which: Short-term (end of period)	160.2	149.9	149.2	135.0	137.8	140.7
Total external debt (in percent of GDP)	31.8	34.0	41.4	35.5	32.6	31.8
Debt service ratio 4/	6.9	7.9	7.8	6.8	6.9	6.7

Sources: Korean authorities; and IMF staff estimates and projections.

1/ Contribution to GDP growth.
2/ Data for 2011 are as of July 12.
3/ Data for 2011 are as of April.
4/ Debt service on medium- and long-term debt in percent of exports of goods and services.

Table 2. Korea: Balance of Payments, 2007–13

(In billions of U.S. dollars, unless otherwise indicated)

					Projections		
	2007	2008	2009	2010	2011	2012	2013
Current account balance	21.8	3.2	32.8	28.2	13.2	13.0	13.1
Trade balance	37.1	5.2	37.9	41.9	28.5	29.4	29.5
Exports	389.6	434.7	358.2	464.3	523.9	589.7	653.6
(growth rate, in percent)	15.8	11.6	-17.6	29.6	12.8	12.5	10.8
Imports	352.4	429.5	320.3	422.4	495.5	560.2	624.1
(growth rate, in percent)	15.5	21.9	-25.4	31.9	17.3	13.1	11.4
Services	-12.0	-5.7	-6.6	-11.2	-12.2	-13.5	-13.5
Income	0.1	4.4	2.3	0.8	0.1	0.1	0.1
Current transfers	-3.5	-0.7	-0.7	-3.2	-3.2	-3.1	-3.0
Financial and capital account balance	-8.3	-57.1	34.5	2.2	11.9	10.8	10.4
Financial account	-5.9	-57.2	34.2	2.4	11.4	10.3	9.9
Portfolio investment, net	-20.6	-17.2	46.6	38.5	13.0	13.0	13.0
Direct investment, net	-17.9	-16.9	-14.9	-19.4	-18.0	-20.0	-21.0
Other investment, assets	-14.8	-13.7	1.7	-12.3	0.0	0.0	0.0
Other investment, liabilities	47.5	-9.4	0.8	-4.5	16.4	17.3	17.9
Capital account	-2.4	0.1	0.3	-0.2	0.5	0.5	0.5
Net errors and omissions	2.1	-2.0	1.9	-2.9	0.0	0.0	0.0
Overall balance	15.6	-56.0	69.1	27.5	25.1	23.8	23.5
Financing	-15.6	56.0	-69.1	-27.5	-25.1	-23.8	-23.5
Change in usable reserves (increase -)	-15.1	56.4	-68.7	-27.1	-24.7	-23.5	-23.2
Net IMF purchases	0.0	0.0	0.0	0.0	0.0	0.0	0.0
World Bank/AsDB 1/	-0.5	-0.5	-0.4	-0.4	-0.4	-0.3	-0.3
Memorandum items:							
Current account balance (in percent of GDP)	2.1	0.3	3.9	2.8	1.1	1.0	1.0
Trade balance (in percent of GDP)	3.5	0.6	4.5	4.1	2.5	2.3	2.2
Gross reserves	262.1	201.1	269.9	291.5	316.2	339.7	362.9
(in months of imports of goods and services)	7.2	4.6	8.1	6.8	6.3	6.0	5.8
External debt	333.4	317.4	345.4	360.0	379.0	399.0	419.6
(in percent of GDP)	31.8	34.0	41.4	35.5	32.6	31.8	31.3
Short-term external debt (inc. trade credits)	160.2	149.9	149.2	135.0	137.8	140.7	143.5
Nominal GDP	1049.1	933.0	833.9	1014.1	1162.2	1256.6	1341.3

Sources: Korean authorities; and IMF staff estimates and projections.

1/ These World Bank and Asian Development Bank loans were extended as exceptional financing in the 1997-98 crisis.

Table 3.1. Korea: Statement of Central Government Operations, 2007–13

	2007p	2008p	2009p	2010p	Projections 2011	2012	2013
				(In trillions of won)			
Revenue	236.0	246.6	245.5	268.5	291.3	311.3	335.0
Tax revenue	161.5	167.3	164.5	177.7	192.5	205.0	221.4
Social contributions	33.1	39.0	40.2	42.8	46.3	49.8	53.3
Of which: Social security contributions	29.7	32.9	33.9	35.6	38.5	41.4	44.3
Other revenue	41.4	40.3	40.7	48.0	52.4	56.4	60.3
Expenditure	213.4	229.8	245.3	248.8	263.2	277.9	295.4
Expense	196.4	211.4	232.7	235.2	249.0	263.0	279.5
Net acquisition of nonfinancial assets	17.0	18.4	12.6	13.6	14.1	14.9	15.9
Net lending (+) / borrowing (-)	22.6	16.8	0.2	19.8	28.1	33.3	39.6
Less: Policy lending	-11.2	4.9	17.8	3.1	4.6	4.6	4.6
Overall balance	33.8	11.9	-17.6	16.7	23.5	28.8	35.0
Less: Social Security Fund balance	30.2	27.5	25.7	29.7	31.6	33.4	35.2
Overall balance excluding Social Security Funds	3.6	-15.7	-43.3	-13.0	-8.1	-4.7	-0.2
Net acquisition of financial assets	-1.5	58.3	57.4	57.4	57.4	57.4	57.4
Domestic	-1.5	57.4	56.4	56.4	56.4	56.4	56.4
Currency and deposits	-18.1	-15.1	-0.3	-0.3	-0.3	-0.3	-0.3
Loans	16.6	72.5	56.7	56.7	56.7	56.7	56.7
Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foreign	0.0	0.9	1.0	1.0	1.0	1.0	1.0
Currency and deposits	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Loans	0.0	0.9	1.0	1.0	1.0	1.0	1.0
Monetary gold and SDR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net incurrence of liabilities	-24.1	41.5	57.2	37.6	29.3	24.0	17.8
Domestic	-23.3	41.5	57.2	37.6	29.3	24.0	17.8
Loans	-23.3	41.5	57.2	37.6	29.3	24.0	17.8
Foreign	-0.8	0.0	0.0	0.0	0.0	0.0	0.0
Loans	-0.8	0.0	0.0	0.0	0.0	0.0	0.0
				(In percent of GDP)			
Revenue	24.2	24.0	23.0	22.9	22.9	22.8	22.9
Tax revenue	16.6	16.3	15.4	15.2	15.2	15.0	15.2
Social contributions	3.4	3.8	3.8	3.7	3.7	3.7	3.7
Of which: Social security contributions	3.0	3.2	3.2	3.0	3.0	3.0	3.0
Other revenue	4.2	3.9	3.8	4.1	4.1	4.1	4.1
Expenditure	21.9	22.4	23.0	21.2	20.7	20.4	20.2
Expense	20.1	20.6	21.8	20.1	19.6	19.3	19.1
Net acquisition of nonfinancial assets	1.7	1.8	1.2	1.2	1.1	1.1	1.1
Net lending (+) / borrowing (-)	2.3	1.6	0.0	1.7	2.2	2.4	2.7
Less: Policy lending	-1.2	0.5	1.7	0.3	0.4	0.3	0.3
Overall balance	3.5	1.2	-1.7	1.4	1.9	2.1	2.4
Less: Social Security Fund balance	3.1	2.7	2.4	2.5	2.5	2.4	2.4
Overall balance excluding Social Security Funds	0.4	-1.5	-4.1	-1.1	-0.6	-0.3	0.0
Memorandum items:							
Operating balance (trillion won)	39.6	35.2	12.8	33.4	42.2	48.3	55.5
In percent of GDP	4.1	3.4	1.2	2.8	3.3	3.5	3.8
Primary balance (trillion won)	47.3	26.2	-6.1	30.1	39.5	45.5	51.8
In percent of GDP	4.8	2.6	-0.6	2.6	3.1	3.3	3.5
Overall structural balance (trillion won)	33.8	13.6	-9.5	18.2	22.6	28.6	35.0
In percent of GDP	3.5	1.3	-0.9	1.5	1.8	2.1	2.4
Nominal GDP (trillion won)	975.0	1,026.5	1,065.0	1,172.8	1,269.3	1,365.1	1,460.3
Public debt, excluding government guarantee (trillion won)	289.1	297.9	346.1	392.8	400.8	404.6	404.8
In percent of GDP	29.7	29.0	32.5	33.5	31.6	29.6	27.7
Total nonfinancial SOE debt (trillion won)	156.8	199.6	237.5	271.8	...	...	...
Of which: Korea Land and Housing Corporation debt	66.9	85.8	109.2	125.5	...	...	...

Sources: Ministry of Strategy and Finance; and IMF staff estimates and projections.
p: preliminary.

Table 3.2. Korea: Integrated Balance Sheet - Consolidated General Government, 2007–10

	2007			2008			2009			2010			
	Opening balance	Transactions	Other economic flows	Closing/ Opening balance	Transactions	Other economic flows	Closing/ Opening balance	Transactions	Other economic flows	Closing/ Opening balance	Transactions	Other economic flows	Closing balance
						(In trillions of won)							
Net financial worth	334.5			392.7			386.9			415.5			438.5
Financial assets	589.1	69.8	9.2	668.1	38.0	-11.7	694.4	42.1	24.7	761.2	49.9	22.0	833.2
Currency and deposits	65.5	24.2	0.0	89.7	-7.2	0.0	82.4	-4.9	0.0	77.5	7.5	0.0	85.1
Securities other than shares	177.1	14.0	-0.9	190.3	20.0	5.6	215.9	26.8	-0.2	242.5	6.0	6.1	254.6
Loans	185.7	14.8	0.1	200.6	7.5	1.2	209.3	12.5	-0.3	221.4	18.5	0.1	240.1
Other	160.8	16.7	10.1	187.6	17.7	-18.5	186.8	7.7	25.2	219.7	17.9	15.8	253.4
Liabilities	254.6	26.3	-5.5	275.4	7.3	24.7	307.4	51.9	-13.6	345.7	38.1	11.0	394.7
Securities other than shares	225.0	22.1	-6.2	240.9	14.2	17.9	272.9	48.9	-9.4	312.5	35.0	11.2	358.7
Loans	5.9	-0.3	0.0	5.5	-0.7	0.5	5.3	0.7	-0.1	5.9	0.7	0.0	6.5
Other	23.8	4.6	0.6	29.0	-6.1	6.3	29.2	2.3	-4.2	27.4	2.4	-0.3	29.5
Memorandum items:													
Net financial worth (in percent of GDP)	36.8			40.3			37.7			39.0			37.4
Change in net financial worth (percent)				17.4			-1.5			7.4			5.5
Liabilities/Financial assets ratio	0.4			0.4			0.4			0.5			0.5
Nominal GDP	908.7			975.0			1,026.5			1,065.0			1,172.8

Source: Haver Analytics.

Table 4. Korea: Medium-Term Projections, 2010–16

		Projections					
	2010	2011	2012	2013	2014	2015	2016
Real GDP (percent change)	6.2	4.5	4.2	4.2	4.0	4.0	4.0
Total domestic demand	6.0	4.6	4.0	4.1	4.2	4.3	4.3
Final domestic demand	4.8	4.6	4.0	4.1	4.1	4.2	4.2
Consumption	3.9	4.5	3.9	4.0	4.0	4.1	4.1
Gross fixed investment	7.0	4.7	4.2	4.4	4.5	4.6	4.6
Stock building 1/	1.0	0.0	0.0	0.0	0.0	0.0	0.0
Net foreign balance 1/	0.1	0.7	0.5	0.4	0.2	0.1	0.1
Prices, period average (percent change)							
Consumer price	3.0	4.3	3.6	3.0	3.0	3.0	3.0
GDP deflator	3.7	3.5	3.2	2.7	3.0	3.1	3.2
Savings and investment (in percent of GDP)							
Gross national savings	31.9	29.9	30.2	29.9	29.5	29.3	29.1
Gross domestic investment	29.2	28.7	29.1	28.9	28.6	28.5	28.3
Current account balance	2.8	1.1	1.0	1.0	0.9	0.8	0.7
Consolidated central government (in percent of GDP)							
Revenue	22.9	22.9	22.8	22.9	23.1	23.2	23.2
Expenditure	21.2	20.7	20.4	20.2	20.3	20.3	20.4
Net lending (+) / borrowing (-)	1.7	2.2	2.4	2.7	2.8	2.8	2.8
Overall balance 2/	1.4	1.9	2.1	2.4	2.5	2.5	2.5
Excluding Social Security Funds	-1.1	-0.6	-0.3	0.0	0.1	0.2	0.2
Debt, domestic plus external 3/	33.5	31.6	29.6	27.7	25.8	23.8	22.0
Trade (percent change)							
Merchandise exports	29.6	12.8	12.5	10.8	9.9	9.8	9.5
Volumes 4/	16.2	11.5	11.1	10.8	10.6	10.5	10.5
Merchandise imports	31.9	17.3	13.1	11.4	10.4	10.2	9.9
Volumes 4/	16.8	10.8	11.7	11.8	11.9	11.8	11.8
Terms of trade	-0.9	-4.4	0.0	0.4	0.7	0.7	0.7
Balance of payments (in billions of U.S. dollars)							
Current account	28.2	13.2	13.0	13.1	12.9	12.6	12.5
(In percent of GDP)	2.8	1.1	1.0	1.0	0.9	0.8	0.7
Trade balance	41.9	28.5	29.4	29.5	29.2	29.2	28.7
Merchandise exports	464.3	523.9	589.7	653.6	718.1	788.1	862.7
Merchandise imports	422.4	495.5	560.2	624.1	688.8	758.9	834.0
External debt							
In billions of U.S. dollars 5/	360.0	379.0	399.0	419.6	440.2	460.9	481.7
(In percent of GDP)	35.5	32.6	31.8	31.3	30.6	29.8	29.0
Debt service ratio 6/	6.8	6.9	6.7	6.9	7.2	7.4	7.5
Memorandum items:							
Nominal GDP (in trillions of won)	1,173	1,269	1,365	1,460	1,565	1,678	1,801
Per capita GDP (in U.S. dollars)	20,744	23,705	25,556	27,202	29,112	31,175	33,426
Output gap (percent of potential GDP)	-0.5	0.3	0.1	0.0	0.0	0.0	0.0

Sources: Korean authorities; and IMF staff estimates and projections.

1/ Contribution to GDP growth.
2/ Excluding privatization receipts and conversion of KDIC/KAMCO bonds into treasury bonds.
3/ During 2003-06, W 49 trillion in government guaranteed KDIC/KAMCO bonds have been converted into treasury bonds.
4/ Customs clearance basis.
5/ Includes IMF and offshore borrowing of domestic financial institutions and debt contracted by their overseas branches.
6/ Debt service on medium- and long-term debt in percent of exports of goods and services.

Table 5. Korea: Financial Soundness Indicators, 2004–10

	2004	2005	2006	2007	2008	2009	2010
Financial Sector				(In percent)			
Total loans/GDP	88.8	91.9	102.4	110.1	125.5	120.7	111.6
Commercial banks	61.9	63.3	71.0	75.2	83.3	79.1	73.2
Other financial institutions	26.8	28.6	31.3	34.9	42.2	41.6	38.4
Bank loans				(Year-on-year percent change)			
SMEs	3.0	4.7	17.7	22.5	13.2	4.8	-0.2
Households	8.9	10.7	13.4	5.1	6.9	5.2	5.3
Large companies	-11.1	15.9	-4.6	32.9	60.0	-6.4	15.7
Banks 1/				(In percent)			
Capital adequacy ratio	12.1	13.0	12.8	12.3	12.3	14.4	14.6
Tier 1 capital ratio	8.0	9.3	9.2	9.0	8.8	10.9	11.6
Return on assets	0.9	1.3	1.1	1.1	0.5	0.4	0.5
Net interest margin	2.6	2.8	2.6	2.4	2.3	2.0	2.3
Substandard or below loans, share				(In percent of total loans)			
Commercial banks	2.0	1.3	0.9	0.7	1.2	1.2	1.9
Specialized banks	1.7	1.1	0.7	0.7	1.1	1.4	2.0
Mutual savings banks	13.0	13.8	10.5	8.8	9.1	9.3	10.6
Credit unions	6.0	5.4	4.5	3.8	3.5	3.7	3.7
Corporate Sector				(In percent)			
Corporate debt/GDP 2/	102.2	101.2	108.6	112.6	136.4	132.7	127.5
Delinquency ratio (domestic commercial bank loans)	2.1	1.5	1.2	1.0	1.5	1.0	1.1
Debt ratio to:							
Equity	104.2	100.9	98.9	107.1	123.2	109.6	101.5
Total assets	24.0	22.9	22.4	24.9	26.3	26.0	25.5
Sales	20.7	19.9	19.9	23.3	24.3	25.3	23.8
Interest coverage ratio 3/	575.8	525.4	439.3	435.3	415.8	417.1	545.4
Current assets/current liabilities	117.0	121.4	120.5	119.8	112.8	121.2	121.0
Operating income/sales	7.6	6.1	5.3	5.9	5.9	6.2	6.9
Financial expenses/sales	-1.3	-1.2	-1.2	-1.4	-1.4	-1.5	-1.3
Ordinary income/sales	7.8	6.6	5.8	6.2	3.2	6.0	7.0
Household Sector				(In percent of GDP)			
Household credit	60.1	62.6	62.6	62.4	68.6	66.6	66.0
Of which : Commercial and specialized banks	35.0	36.7	37.2	36.0	38.7	37.2	35.8
Delinquency ratio (all bank loans)				(In percent)			
Households	1.7	1.1	0.7	0.6	0.6	0.5	0.6
Credit card 4/	4.1	2.2	1.7	1.3	1.8	1.4	1.3
				(Year-on-year percent change)			
Housing prices, percent change	-2.1	4.0	11.6	3.1	3.1	1.5	1.9
Of which : Seoul	-1.4	6.3	18.9	5.4	5.0	2.7	-1.2

Sources: Bank of Korea; Financial Supervisory Service; and CEIC Data Company Ltd.

1/ Includes nationwide commercial banks, regional banks, and specialized banks.

2/ Includes nonfinancial corporations.

3/ Operating income to gross interest payments. Operating income treats depreciation as an expense, so this ratio is lower than calculations using earnings before interest, taxes, and depreciation allowance (EBITDA).

4/ Over one month.

Table 6. Korea: Indicators of Financial and External Vulnerability, 2007–11

(In percent of GDP, unless otherwise indicated)

	2007	2008	2009	2010	2011	Date
Financial indicators						
Consolidated central government debt 1/	33.0	31.8	35.3	36.5	34.3	Proj.
Broad money (M3, percent change, 12-month basis)	10.0	9.1	9.4	9.1	4.7	Apr-11
Private sector credit (Dep. Corp. survey, percent change, 12-month basis)	14.7	16.8	2.8	0.5	4.7	May-11
One-month call borrowing rate	5.0	2.9	2.0	2.5	3.3	Jun-11
One-month call borrowing rate (real)	1.4	-1.2	-0.8	-1.0	-1.1	Jun-11
External indicators						
Exports (percent change, 12-month basis in US$)	15.8	11.6	-17.6	29.6	23.6	May-11
Imports (percent change, 12-month basis in US$)	15.5	21.9	-25.4	31.9	31.7	May-11
Terms of trade (percent change, 12-month basis)	-2.5	-14.3	10.8	-0.9	-8.5	Apr-11
Current account balance (projection for full year)	2.1	0.3	3.9	2.8	1.1	Proj.
Capital and financial account balance (projection for full year)	-0.8	-6.1	4.1	0.2	1.0	Proj.
Of which: Inward portfolio investment (equity, debt securities, etc.)	2.3	-10.3	-3.6	-0.7	0.5	Proj.
Other investment (loans, trade credits etc.)	4.5	-1.1	0.0	-0.5	1.4	Proj.
Inward foreign direct investment in the form of debt or loans	0.1	0.2	0.1	0.0	...	...
Gross official reserves (US$ billion)	262.1	201.1	269.9	291.5	304.5	Jun-11
Central bank short-term foreign liabilities (US$ billion)	9.6	18.3	11.7	10.3	...	...
Short-term foreign liabilities of the financial sector (US$ billion)	58.9	59.0	64.6	72.4	...	...
Official reserves in months of imports GS (projection for full year)	7.2	4.6	8.1	6.8	6.3	Proj.
Broad money (M3) to reserves	6.9	7.3	6.4	6.5	6.6	Apr-11
Reserves to total short-term external debt (percent) 2/	136.9	111.7	146.3	166.1	174.5	Proj.
Total external debt	31.8	34.0	41.4	35.5	32.6	Proj.
Of which: Public sector debt	3.0	2.3	3.3	4.4	...	...
Of which: Short-term debt	15.3	16.1	17.9	13.3	11.9	Proj.
Total external debt to exports GS (percent)	72.1	60.4	80.0	65.8	61.4	Proj.
External interest payments to exports GS (percent)	1.6	1.9	0.8	0.3	0.3	Proj.
External amortization payments to exports GS (percent)	5.3	5.9	7.0	6.5	6.6	Proj.
Exchange rate (per US$, period average)	929	1,100	1,277	1,156	1,066	Jul 12, 11
REER appreciation (+) (12-month basis)	-1.1	-18.9	-11.7	8.5	0.6	May-11
Financial market indicators						
Stock market index (KOSPI)	1897	1124	1683	2051	2110	Jul 12, 11
Stock market index (KOSPI, percent change, 12-month basis)	32.3	-40.7	49.7	21.9	21.6	Jul 12, 11
Foreign currency debt rating (Moody's/S&P)	A2/A	A2/A	A2/A	A1/A	A1/A	Jul 12, 11

Sources: Korean authorities; private market sources; and IMF staff estimates and projections.

1/ Including government-guaranteed restructuring bonds issued by KDIC and KAMCO.

2/ Short-term debt measured on a residual maturity basis.

INTERNATIONAL MONETARY FUND

REPUBLIC OF KOREA

STAFF REPORT FOR THE 2011 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

July 14, 2011

Prepared By | Asia and Pacific Department

CONTENTS

ANNEX I. FUND RELATIONS

(As of July 12, 2011)

Membership Status: Joined August 26, 1955; Article VIII

General Resources Account

	SDR Million	Percent Quota
Quota	3,366.40	100.00
Fund holdings of currency (exchange rate)	2,392.71	71.08
Reserve tranche position	973.69	28.92
Lending to the Fund		
New arrangements to to borrow	227.30	

SDR Department

	SDR Million	Percent Allocation
Net cumulative allocation	2,404.45	100.00
Holdings	2,243.55	93.31

Outstanding Purchases and Loans

None

Financial Arrangements (In SDR Million)

Type	Date of Arrangement	Expiration Date	Amount Approved	Amount Drawn
Stand-by	Dec. 04, 1997	Dec. 03, 2000	15,500.00	14,412.50
Of which SRF	Dec. 18, 1997	Dec. 17, 1998	9,950.00	9,950.00
Stand-by	Jul. 12, 1985	Mar. 10, 1987	280.00	160.00
Stand-by	Jul. 08, 1983	Mar. 31, 1985	575.78	575.78

Projected Obligations to Fund[1]

(SDR Million; based on existing use of resources and present holdings of SDRs)

	Forthcoming				
	2011	2012	2013	2014	2015
Principal					
Charges/interest	0.45	0.92	0.92	0.92	0.92
Total	0.45	0.92	0.92	0.92	0.92

[1] When a number has overdue financial obligations outstanding for more than three months, the amount of arrears will be shown in this section.

Exchange Rate Arrangement:

Korea's exchange rate system has been classified as "floating" since 2009. Over 1997–2008 the exchange rate was classified as "free floating" ("independently floating" under the older classification system). Prior to that, the exchange rate against the U.S. dollar was allowed to float only within specified margins around the previous day's weighted average exchange rate in the interbank market. The margins were widened five times between March 1990 and November 1997 (most recently to +/-10 percent), and on December 16, 1997 were eliminated altogether. On July 12, 2011, the exchange rate was W 1,066=US$1. Korea maintains exchange restrictions for security reasons, in accordance with UN Security Council Resolutions, which have been notified to the Fund under the procedures set forth in Executive Board Decision 144 (52/51).

Last Article IV Consultation:

Korea is on a 12-month consultation cycle. The 2010 Article IV consultation was concluded by the Executive Board on August 25, 2010. Staff discussions for the 2011 Article IV consultation were conducted on a mission to Seoul during June 2–17, 2011. In addition, a staff visit took place during January 12–19, 2011.

FSAP and ROSC Participation:

MCM: An FSAP update has been requested by the authorities and is tentatively scheduled for 2013. The final FSAP mission was conducted during October 2002. The mission completed the FSAP by assessing the short-term vulnerability of the financial sector to macroeconomic and sectoral shocks and analyzing overall financial sector soundness and developmental challenges, including issues arising from the draft standards assessments. A follow-up technical assistance mission on the supervision of derivatives markets was held in Seoul during January 9-20, 2003. The Financial System Stability Assessment report has been published (Country Report No. 03/81) and is available on the web through the following link: http://www.imf.org/external/np/fsap/fsap.asp.

FAD: Discussions on fiscal transparency were held in Seoul during June 2000, and a report was drafted and finalized in November 2000, with input from APD staff. The report has been published and is available on the web through the following link: http://www.imf.org/external/np/rosc/kor/fiscal.htm.

STA: Discussions on Korea's data dissemination practices against the IMF's Special Data Dissemination Standard (SDDS) were held in Seoul during December 2009, and a report was drafted and finalized in July 2010. The report has been published and is available on the web through the link: http://www.imf.org/external/pubs/ft/scr/2010/cr10229.pdf

Technical Assistance:

FAD: A technical assistance mission on government finance statistics took place in Seoul during the period November 8–19, 2010. A mission visited Seoul during August 31-September 16, 2005 to provide technical assistance on the reform of tax policy and administration. A technical assistance mission visited Seoul during January 8–19, 2001 to evaluate current practices in budgeting and public expenditure management and to provide advice on setting up a medium-term fiscal framework.

MCM: Technical assistance missions visited Seoul to provide advice on financial holding company supervision and derivatives regulation during December 8–17, 2008, on measures to deepen the money market during December 4–14, 2007, on strengthening the debt management function and further development of the government securities market during September 20–October 2, 2006, on the reform and development of the foreign exchange market during March 30 April 13, 2006, and on macroprudential and derivatives supervision during October 27–November 7, 2005.

STA: Technical assistance missions visited Seoul during March 29–April 12, 2000 to provide advice on balance of payments and external debt statistics, with a view toward improving the recording of financial derivatives and developing an international investment position statement, and during November 28–December 11, 2007 on the GFSM 2001 framework.

Resident Representative:

The resident representative office in Seoul was opened in March 1998 and was closed in September 2008.

ANNEX II. STATISTICAL ISSUES

ANNEX II: KOREA—STATISTICAL ISSUES

As of June 9, 2011

I. Assessment of Data Adequacy for Surveillance

General: Data provision is adequate for surveillance.

National Accounts: The overall structure of the national accounts follows the recommendations of the *1993 System of National Accounts*. Chain-linked (reference year 2005) and nominal GDP estimates are compiled using the production and expenditure approaches; nominal GDP estimates are also compiled using the income approach. After the revision to reference year 2005, the estimation method for expenditure components has been altered from the commodity flow method to the direct estimation method, in which each expenditure component is measured directly. The size of the informal sector has not been measured. Improved methods are required to adjust quarterly (seasonally-unadjusted) GDP estimates to agree with annual (benchmark) GDP estimates.

Consumer Price Index: The Consumer Price Index (CPI) covers 38 urban areas (about 80 percent of the urban population), but excludes farm and fishing households. The CPI could be further improved by extending coverage to rural areas. The consumption basket is updated only every five years; currently, expenditure weights are derived from the *2005 Family Income and Expenditure Survey* and are in need of updating. The geometric mean of price changes should be used as a suitable alternative to the ratio of arithmetic means of prices.

Producer Price Index: The Producer Price Index (PPI) covers all domestic industrial activities and a large segment of service activity. It excludes exported products, however, because the Export Price Indexes are compiled separately in Korea. The weights are based on 2005 revenue shares and are in need of updating. The PPI could be improved by making more use of imputing missing prices using the prices of similar commodities, rather than carrying forward the last reported price. Although an arithmetic mean of price relatives is currently used rather than a geometric mean, a supplementary index is also compiled using a geometric mean. However, the headline PPI should be changed to the one based on a geometric mean at the elementary level. The PPI classification by activity conforms to the KSIC, which is itself based on the International Standard Industrial Classification (ISIC)—with slight modifications only to reflect local considerations. The Korean commodity classification used for the PPI does not conform to the Central Product Classification (CPC) and one based on the CPC should be adopted as soon as possible.

Government Finance Statistics: Two sets of government finance statistics (GFS) are compiled for the central government, one using national definitions and the other using internationally recognized standards. Concepts and definitions used in the latter still follow the recommendations of the *Manual on Government Finance Statistics 1986*. The authorities have embarked on an ambitious program to implement reporting according to *GFSM 2001,* by 2012. The 2009 ROSC indicated that while compilation practices are generally sound, some room for improvement of the accessibility and timeliness of data and metadata existed. Following the 2009 ROSC, the Korean authorities resumed reporting consolidated GFS data on the general government for publication in the *Government Finance Statistics Yearbook (GFSY)*. The timeliness of these data does not comply with SDDS requirements, mainly due to the lack in timeliness on local government source data. During the 2009 ROSC, the authorities also agreed to improve national dissemination practices and initiated work on improving national websites. However, high frequency data for inclusion in the *International Financial Statistics* (*IFS*) are not yet reported.

Financial Sector Data*:* Monetary and financial statistics compiled by the Bank of Korea (BOK) broadly follow the IMF's *Monetary and Financial Statistical Manual 2000*. Data relating to foreign assets and foreign liabilities are affected by the BOK practice of valuing its financial assets and liabilities at book value (rather than at market value) and revaluing its foreign currency-denominated assets and liabilities twice yearly (rather than on a monthly basis). The BOK is in discussion with STA about reporting monetary and financial statistics using Standardized Report Forms (SRFs) and drafting related notes for publication in the *IFS*. A draft SRF for the central bank (form 1SR) was recently reported to STA and the BOK anticipates providing the other SRFs within this calendar year.

Korea participates in the regular reporting of *Financial Soundness Indicators* (FSIs) to the IMF for dissemination on its website. FSI data and metadata are available to the public through the IMF's website at: http://fsi/FSIHome.aspx#Country.

External Sector Statistics: Korea follows the *Balance of Payments Manual,* fifth Edition (*BPM5*) framework for the compilation of the external sector statistics, although with a few deviations; the scope of the transactions of enterprises through accounts held abroad and of reinvested earnings is partial; trade credits with affiliated entities are recorded under other investment; and income transactions are recorded on a cash flow basis. Based on latest information from the authorities, improved reinvested earnings data are to be disseminated by no later than 2012. Since January 2010, short-term loans to affiliated entities are classified in direct investment.

The quality of the quarterly external debt statistics has greatly improved. In early 2007, the BOK switched from annual to quarterly reporting of the International Investment Position. Data dissemination on international reserves and foreign currency liquidity generally meets the SDDS specifications. Since April 2006, the authorities have disseminated foreign reserves data on a monthly basis rather than twice a month, as had been done since 1997.

The BOK has plans to migrate to the *Balance of Payments and International Investment Position Manual,* sixth edition (*BPM6*); the authorities have already assessed the resources and institutional arrangements for the implementation.

Korea reports balance of payments and IIP data for *IFS* (quarterly data) and *Balance of Payments Statistics Yearbook* (annual data) publications.

II. Data Standards and Quality

Korea has subscribed to the Fund's Special Data Dissemination Standard (SDDS) since September 1996, and it uses an SDDS flexibility option on the timeliness of the general government operations and analytical accounts of the banking sector data. Korea is also availing itself of a relevant flexibility option for the coverage of exchange rates.	A Data ROSC reassessment was published in July 2010.

Korea—Table of Common Indicators Required for Surveillance

(As of June 9, 2011)

	Date of Latest Observation	Date Received	Frequency of Data[7]	Frequency of Reporting[7]	Frequency of Publication[7]	Memo Items: Data Quality – Methodological Soundness[8]	Memo Items: Data Quality – Accuracy and Reliability[9]
Exchange Rates	May 2011	6/1/2011	D	D	D		
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1]	Apr. 2011	May 2011	M	M	M		
Reserve/Base Money	Mar. 2011	May 2011	M	M	M	O, O, O, LO	O, O, O, O, O
Broad Money	Mar. 2011	May 2011	M	M	M		
Central Bank Balance Sheet	Mar. 2011	May 2011	M	M	M		
Consolidated Balance Sheet of the Banking System	Mar. 2011	May 2011	M	M	M		
Interest Rates[2]	Feb. 2011	4/27/2011	D	D	D		
Consumer Price Index	Apr. 2011	May 2011	M	M	M	O, O, O, O	O, O, LO, O, O
Revenue, Expenditure, Balance and Composition of Financing[3] – General Government[4]	NA	NA	NA	NA	NA	O, O, O, O	O, O, N/A, O, NA
Revenue, Expenditure, Balance and Composition of Financing[3] – Central Government	May 2010	Jul. 2010	M	M	M		
Stocks of Central Government and Central Government-Guaranteed Debt[5]	Q4 2009	May 2010	Q	Q	Q		
External Current Account Balance	Q4 2010	Mar. 2011	M	M	M	O, LO, LO, LO	O, O, O, O, O
Exports and Imports of Goods and Services	Q4 2010	Mar. 2011	M	M	M		
GDP/GNP	Q4 2010	Apr. 2011	Q	Q	Q	O, O, O, O	O, O, LO, O, LO
Gross External Debt	Q1 2010	Jun. 2010	Q	Q	Q		
International Investment Position[6]	Q4 2010	Mar. 2011	Q	Q	Q		

[1] Any reserve assets that are pledged or otherwise encumbered should be specified separately. Also, data should comprise short-term liabilities linked to a foreign currency but settled by other means as well as the notional values of financial derivatives to pay and to receive foreign currency, including those linked to a foreign currency but settled by other means.

[2] Both market-based and officially determined, including discount rates, money market rates, rates on treasury bills, notes and bonds.

[3] Foreign, domestic bank, and domestic nonbank financing.

[4] The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.

[5] Including currency and maturity composition.

[6] Includes external gross financial assets and liabilitiy positions vis-à-vis nonresidents.

[7] Daily (D); weekly (W); monthly (M); quarterly (Q); annually (A); irregular (I); and not available (NA).

[8] Reflects the assessment provided in the data ROSC or the Substantive Update (published in July 2010, and based on the findings of the mission that took place during December 09–22, 2009) for the dataset corresponding to the variable in each row. The assessment indicates whether international standards concerning concepts and definitions, scope, classification/sectorization, and basis for recording are fully observed (O); largely observed (LO); largely not observed (LNO); not observed (NO); and not available (NA).

[9] Same as footnote 8, except referring to international standards concerning source data, statistical techniques, assessment and validation of source data, and revision studies.

INTERNATIONAL MONETARY FUND
Public Information Notice
EXTERNAL RELATIONS DEPARTMENT

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International Monetary Fund
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Washington, D. C. 20431 USA

IMF Executive Board Concludes 2011 Article IV Consultation with the Republic of Korea

On July 29, 2011 the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation with the Republic of Korea.[1]

Background

Following a rapid recovery from the global financial crisis, growth in 2010 reached an impressive 6.2 percent, led by exports and domestic demand. Momentum eased in the first half of 2011, reflecting the maturing of the expansion, the adjustment in global inventories, and the weaknesses in the construction sector. Growth in 2011 is projected above potential at 4½ percent, led by exports and firming domestic demand, before easing to 4.2 percent next year. Risks to the outlook are broadly balanced.

Aggregate demand pressures, compounded by the rise in food and fuel prices, have led inflation to remain above the Bank of Korea's (BOK) inflation target of 3 ± 1 percent thus far this year. Headline CPI inflation, after having eased to 4.1 percent in May, returned to its year-to-date peak of 4.7 percent in July. Core inflation has continuously risen since December 2010. Wage pressures are not yet apparent due to lagged wage negotiations, even though employment growth and the unemployment rate have reverted to pre-crisis levels.

[1] Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board. At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: http://www.imf.org/external/np/sec/misc/qualifiers.htm.

Exports have been strong, primarily to China and other fast growing emerging markets, but with rising fuel prices and increasing domestic demand for imports, the current account surplus has narrowed relative to last year. Korea is now the world's seventh largest holder of international reserves, which have risen to US$304 billion. The real effective exchange rate has appreciated 2.1 percent from end-2010 through June 2011, but still remains below the pre-crisis levels and its 2000–07 average.

Against the background of ample global liquidity, Korea's strong growth and a perceived one-way bet on the currency have led to large portfolio inflows, boosting equity prices to near all-time highs. The external short-term debt of Korean banks has been maintained below pre-crisis peaks, although these flows have strengthened recently.

Despite subdued credit growth from commercial banks, overall credit to households continues to be robust, driven primarily by nonbank financial institutions. As a result, household debt remains high at 125 percent of household disposable income. Corporate funding conditions are favorable, except for medium-sized enterprises (SMEs), reflecting the weaknesses in the construction and real estate sector and the expiration of guidance to roll over SME loans. National house prices are now 8.4 percent above their post-crisis lows.

The commercial banking system's capital adequacy ratio stood at 14.3 percent, while the nonperforming loan ratio remains low at 1.3 percent. Commercial banks have also reduced their reliance on wholesale funding, with loan-to-deposit ratios declining to 96½ percent. However, the large exposure of Mutual Saving Banks (MSB) to the weak construction and real estate sector has led to deposit runs on eight MSBs, which have been suspended.

The authorities moved decisively toward fiscal policy consolidation since last year. The budget deficit, excluding social security funds, is projected to decline to 0.6 percent of GDP in 2011, from 1.1 percent of GDP in 2010, driven by expenditure restraint and efforts to broaden the tax bases. This implies a broadly neutral fiscal stance in 2011. The BOK has raised the policy rate by a cumulative 125 basis points—from an all-time low of 2 percent—since July 2010. However, monetary policy remains accommodative with real policy rate at -1 percent. The authorities have implemented several administrative price stabilization measures to address rising inflation. They also introduced several measures to address capital flow volatility, including by limiting banks' foreign currency derivative positions and reinstating the withholding tax on foreign holdings of Treasury and Monetary Stabilization Bonds. They have also adjusted various elements of their housing market policies over the cycle to support the sector.

Executive Board Assessment

Executive Directors welcomed the solid, broad-based recovery of the economy from the global financial crisis, buttressed by the authorities' skillful economic management. Growth is expected to continue robustly above its potential this year, and the medium-term outlook remains favorable. Directors noted the buildup of inflationary pressures and near-term risks linked to uncertainties in the global economy and financial markets. They agreed that the immediate policy priority is to ensure a soft landing and safeguard financial stability—through proactive monetary tightening, greater exchange rate flexibility, and ongoing fiscal consolidation, complemented by macroprudential policies.

Directors supported the broadly neutral stance of fiscal policy, and welcomed the plan to balance the central government budget by 2013–14. They encouraged the authorities to save revenue overperformance and stand ready to accelerate consolidation in 2012 should aggregate demand pressures persist. Directors stressed the need to continue strengthening the medium-term fiscal framework, particularly by introducing a structural fiscal rule linking future liabilities—including those related to population aging and public enterprise debt—to annual budgets. Broadening the tax base, streamlining subsidies, and reforming entitlement programs are also essential to ensure long-term fiscal sustainability.

Directors welcomed the resilience of Korea's overall financial system, with well-capitalized banks and low nonperforming loans. While noting that problems in some mutual savings banks do not pose a systemic risk, they recommended a restructuring of the industry, including through strengthening its risk management and governance. Directors welcomed recent steps toward that end and plans for further improving the supervisory framework more broadly.

Directors underlined the importance of enhancing the macrofinancial policy framework. They generally saw merit in further integrating macroeconomic and financial policies into a coherent framework, allowing policymakers to capture cross-sectoral linkages and detect vulnerabilities early on. In this context, Directors agreed that overall price stability should remain the central bank's primary objective, and most Directors saw scope for making interest rate policy more responsive to financial stability considerations. Directors encouraged the authorities to gradually phase out administrative price stabilization measures.

Directors considered macroprudential tools a useful complement to macroeconomic policies in addressing financial stability concerns arising from capital inflows. They saw the benefits of greater exchange rate flexibility in managing capital flows and absorbing external shocks. Directors also noted a role for market-based housing policies in containing leverage among households.

Directors underscored the need to rebalance the sources of growth, reducing Korea's vulnerability to shocks and promoting inclusive growth. This requires comprehensive reforms aimed at enhancing productivity and competition in the nontradables sector—creating a level playing field with the manufacturing sector while also reducing household indebtedness and social disparities. Further efforts are needed to deregulate the service sector and expedite a bank-led restructuring of small- and medium-sized enterprises. Directors supported labor market policies to increase formal employment opportunities for women and the elderly, while expanding the coverage of the social safety net to address dualities in the labor market.

Korea: Selected Economic Indicators, 2007–12

					Projections	
	2007	2008	2009	2010	2011	2012
Real GDP (percent change)	5.1	2.3	0.3	6.2	4.5	4.2
Total domestic demand	4.5	1.4	-2.7	6.0	4.6	4.0
Final domestic demand	4.9	0.8	0.6	4.8	4.6	4.0
Consumption	5.1	2.0	1.2	3.9	4.5	3.9
Gross fixed investment	4.2	-1.9	-1.0	7.0	4.7	4.2
Stock building 1/	-0.3	0.6	-3.1	1.0	0.0	0.0
Net foreign balance 1/	0.7	1.1	2.8	0.1	0.7	0.5
Nominal GDP (in trillions of won)	975.0	1,026.5	1,065.0	1,172.8	1,269.2	1,365.0
Saving and investment (in percent of GDP)						
Gross national saving	31.5	31.6	30.2	31.9	29.9	30.1
Gross domestic investment	29.4	31.2	26.3	29.2	28.7	29.1
Current account balance	2.1	0.3	3.9	2.8	1.1	1.0
Prices (percent change)						
CPI inflation (end of period)	3.6	4.1	2.8	3.5	4.1	3.2
CPI inflation (average)	2.5	4.7	2.8	3.0	4.3	3.6
Core inflation (average)	2.3	4.3	3.6	1.8	3.6	3.5
GDP deflator	2.1	2.9	3.4	3.7	3.5	3.2
Real effective exchange rate	-1.1	-19.9	-12.4	11.4	…	…
Trade (percent change)						
Export volume	10.4	6.8	0.1	16.2	11.5	11.1
Import volume	9.0	0.9	-2.2	16.8	10.8	11.7
Terms of trade	-2.5	-14.3	10.8	-0.9	-4.4	0.0
Consolidated central government (in percent of GDP)						
Revenue	24.2	24.0	23.0	22.9	22.9	22.8
Expenditure	21.9	22.4	23.0	21.2	20.7	20.4
Net lending (+) / borrowing (-)	2.3	1.6	0.0	1.7	2.2	2.4
Overall balance	3.5	1.2	-1.7	1.4	1.9	2.1
Excluding Social Security Funds	0.4	-1.5	-4.1	-1.1	-0.6	-0.3
Money and credit (end of period)						
Overnight call rate 2/	5.0	2.9	2.0	2.5	3.3	…
Three-year AA- corporate bond yield 2/	6.8	7.7	5.5	4.3	4.4	…
M3 growth 3/	10.0	9.1	9.4	5.9	4.7	…
Balance of payments (in billions of U.S. dollars)						
Exports, f.o.b.	389.6	434.7	358.2	464.3	523.9	589.7
Imports, f.o.b.	352.4	429.5	320.3	422.4	495.5	560.2
Oil imports	60.3	85.9	53.2	72.1	101.5	108.4
Current account balance	21.8	3.2	32.8	28.2	13.2	13.0
Gross international reserves (end of period)	262.1	201.1	269.9	291.5	316.2	339.7
In percent of short-term debt (residual maturity)	136.9	111.7	146.3	166.1	174.5	181.5
External debt (in billions of U.S. dollars)						
Total external debt (end of period)	333.4	317.4	345.4	360.0	379.0	399.0
Of which: Short-term (end of period)	160.2	149.9	149.2	135.0	137.8	140.7
Total external debt (in percent of GDP)	31.8	34.0	41.4	35.5	32.5	31.6
Debt service ratio 4/	6.9	7.9	7.8	6.8	6.8	6.5

Sources: Korean authorities; and IMF staff estimates and projections.
1/ Contribution to GDP growth.
2/ Data for 2011 are as of July 12.
3/ Data for 2011 are as of April.
4/ Debt service on medium- and long-term debt in percent of exports of goods and services.