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2015 ARTICLE IV CONSULTATION—STAFF REPORT; PRESS RELEASE; AND STATEMENT BY THE EXECUTIVE DIRECTOR FOR THE REPUBLIC OF KOREA

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 2015 Article IV consultation with the Republic of Korea, the following documents have been released and are included in this package:

- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on May 8, 2015, following discussions that ended on February 13, 2015, 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 April 23, 2015.
- An **Informational Annex** prepared by the IMF.
- A **Press Release** summarizing the views of the Executive Board as expressed during its May 8, 2015 consideration of the staff report that concluded the Article IV consultation with the Republic of Korea.
- A **Statement by the Executive Director** for the Republic of Korea.

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INTERNATIONAL MONETARY FUND

REPUBLIC OF KOREA

STAFF REPORT FOR THE 2015 ARTICLE IV CONSULTATION

April 23, 2015

KEY ISSUES

Outlook and risks. The outlook remains challenging from both a cyclical and structural standpoint. The hoped-for output recovery has not materialized—domestic demand remains sluggish and inflation low and external uncertainties have increased. More fundamentally, relatively weak non-manufacturing productivity has been accompanied by a heavy, and likely unsustainable, reliance on manufacturing exports for growth while also leaving the economy more exposed to external shocks, and the demographic headwinds from a rapidly aging population are beginning to build.

Policy assessment. Building on the authorities' recent monetary, fiscal, and other policy measures to stimulate demand, efforts should remain focused on shoring up economic momentum where the currently weak outlook could have a lasting impact on Korea's growth well beyond the near term. Given asymmetric costs of the downside risk of low growth and inflation becoming entrenched the authorities should take additional pre-emptive stimulatory monetary and fiscal policy actions if clear signs of a recovery do not emerge soon. At the same time sustaining longer-term growth and reducing external imbalances call for structural reforms to address low service sector productivity, support a more dynamic corporate and SME sector, and remove barriers that lead to underutilized labor. Maintaining a flexible exchange rate is essential both as a buffer against external shocks and to facilitate adjustment toward domestic sources of growth and thereby reduce external imbalances.

Approved By
Kalpana Kochhar and Vivek Arora

Discussions took place in Seoul during February 2–13, 2015. The staff team comprised Messrs. Aitken (head), Ding, Ree, and Ms. Serechetapongse (all APD), Messrs. Fenochietto (FAD), and Mano (RES). Ms. Kochhar (APD) and Mr. Choi (OED) participated in the discussions.

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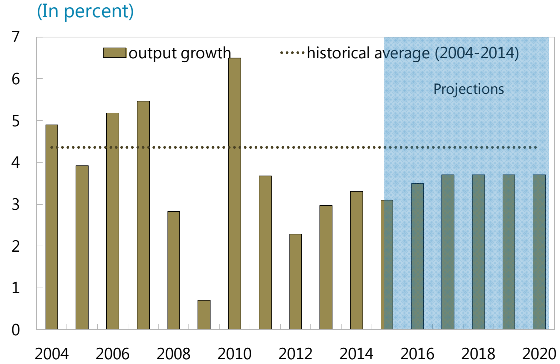
LONGSTANDING GROWTH CHALLENGES

1. **Long-run growth trends.** Korea's economic performance has been on a declining trend after decades of robust and sustained growth. Potential output decreased from around 7 percent during 1990–97 to 4¾ percent during 2000-07, and has been running at about 3½–4 percent since then. While this rate still exceeds that of many of Korea's peers, prosperity has been concentrated within the highly competitive export-oriented conglomerates employing a small share of the population, whereas household income growth and service sector productivity have been sluggish. Going forward population aging will be a major drag on potential growth—on current trends the working age population is projected to peak in 2016 and Korea is expected to become one of the oldest countries in the OECD by 2050 with the dependency ratio increasing rapidly (text figures). Even reaching the staff's projection for potential growth of 3¾ percent will require total factor productivity playing a larger role than at present.

Real Output Growth

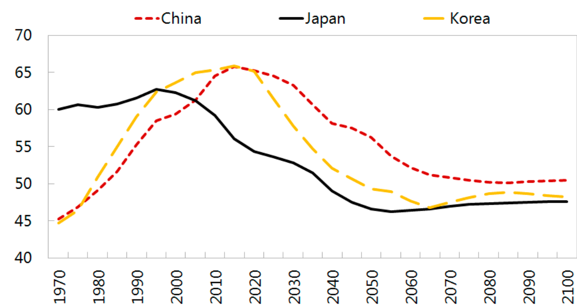
(In percent)



Sources: CEIC Data Company; and IMF staff estimates.

Working-Age Population Ratio

(In percent of total population)

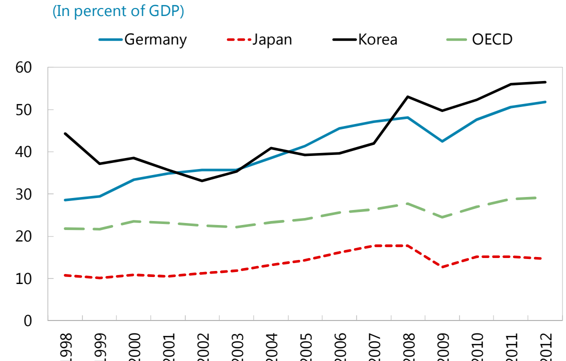


Source: The United Nations *World Population Prospects 2012*.
Note: Working age is 20-64.

2. **Export-led growth.** Exports are at the center of these trends, accounting for both the period of rapid growth and the slowdown. Korea's gross exports have risen steadily since the early 2000s and currently exceed 50 percent of GDP, significantly higher than the OECD average (text figure). This growth was driven in large part by the emergence of Korea's flagship companies to world-class status and accompanied by a sizeable gain in global market share. It is unlikely however that Korea can continue to rely on this growth model going forward—indeed, Korea's market share has been at a standstill since 2011 with continued gains in electronics offset by stable or falling shares for other leading export products. Korea's future prosperity will therefore depend on success in fostering more broad-based productivity growth.

Share of Export

(In percent of GDP)



Source: OECD.

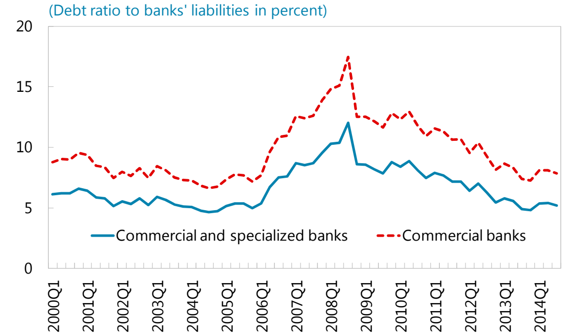
FINANCIAL SOUNDNESS AND RESILIENCE

3. Overview. Although potential output growth is poised to slow, Korea's financial fundamentals as proxied by the health of aggregate private and public sector balance sheets and capital and external buffers are relatively sound which limits sources of short-run systemic risk. At the same time vulnerabilities remain and the structure of private debt markets could be strengthened.

4. Financial sector structure and soundness. The resilience of the Korean financial system has increased since 2008 and near-term vulnerabilities are limited.[1] Banks remain well capitalized with the capital adequacy ratio at around 15 percent as of June 2014, and their funding and liquidity conditions are stable. The banking sector's profitability improved somewhat in 2014 driven by lower provisions and impairment losses, although the return on assets is still below the historical average. The aggregate bank non-performing loan (NPL) ratio increased in 2013, albeit from a low level, driven by a rise in NPLs to large companies in the shipbuilding and construction sectors, but since then banks' asset quality has improved somewhat with the decline in new bad loans and the write-offs and sales of old loans. Growth in the non-bank financial institutions has slowed considerably and their profitability continues to weaken, in part from low interest rates and the strengthening of regulations. Banks' short-term external debt increased in 2014 although it remains well below the pre-crisis levels, and the sizes of their foreign currency and maturity mismatches continue to decline. However, Korean banks still rely heavily on offshore funding, and a tightening of global financial conditions could lead to funding pressures (text figure).

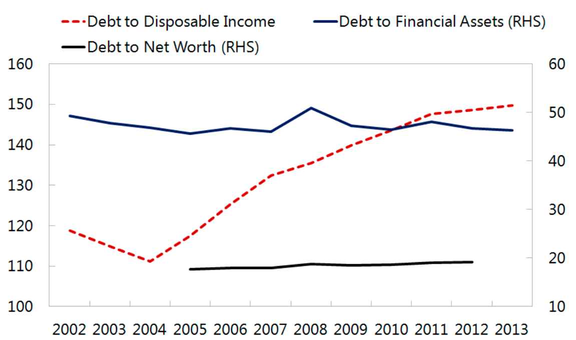
Banks' External Short-term Funding 1/

(Debt ratio to banks' liabilities in percent)



Sources: CEIC Data Company; and IMF staff estimates.
1/ External short-term debt includes domestic banks and foreign banks.

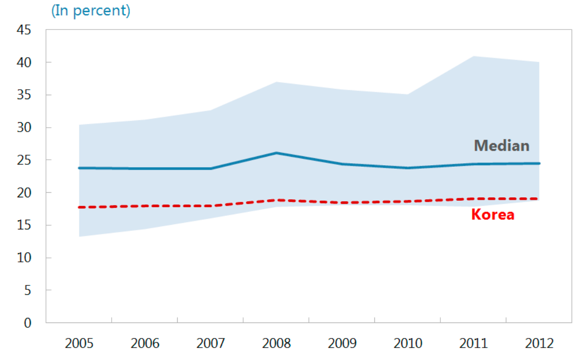
Korea: Household Debt and Leverage (Percent)



Sources: Bank of Korea; Haver Analytics; and IMF staff estimates.

Household Debt to Net Worth, OECD Countries

(In percent)

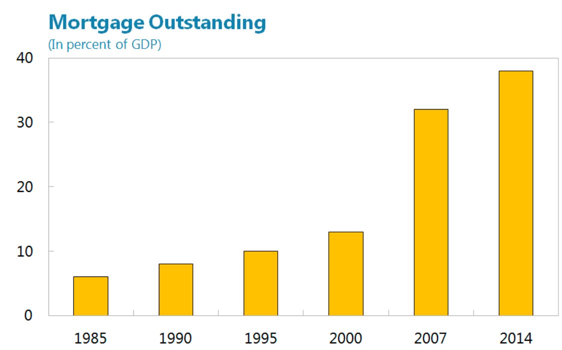


Sources: OECD; Bank of Korea; and IMF staff estimates.
Note: Shaded area represents the interquartile range across countries.

[1] An FSAP was conducted alongside the 2013 Article IV Consultation.

5. Household balance sheets. Overall household debt as a share of income has been rising steadily over the last decade but unlike the experience of many other countries leading up to the global financial crisis, this has recently been on the back of relatively stable house prices, with cautious consumer spending keeping household leverage low and stable and the sector's aggregate net worth comparable to that in many other advanced economies (text figures and Box 1)—rather than reflecting increased borrowing for consumption the rise in debt has been matched by a corresponding increase in household financial assets and may be related to structural factors affecting balance sheet composition, including more retirees and the prevalence of Korea's unique *chonsei* rental market. While pockets of vulnerability exist,[2] the relatively strong aggregate balance sheet and banks' solid capital buffers suggest that in the absence of large macroeconomic shocks the rise in household debt does not pose a systemic near-term threat to the financial sector or the macroeconomy.

6. Housing finance. At the same time the structure of household debt could be strengthened. Reflecting Korea's relatively young and rapidly growing mortgage market (text figure), a large share of houses are financed short-term either in the form of *chonsei* rental deposits or the rolling over of floating-rate interest-only mortgage loans with short maturities and bullet repayments. One key challenge will be to facilitate the transition by households and financial institutions toward a more stable, long-term structure (paragraph 27).



Source: UN Habitat's Housing Finance Mechanisms, 2009; and IMF staff estimates.

7. Corporate balance sheets. While aggregate corporate leverage is relatively modest, many financial soundness indicators have weakened recently and the sector is highly segmented with some growing pockets of vulnerability (Box 2). In particular corporate income and profits have become increasingly concentrated in the top-ranked firms whereas troubled sectors with high leverage and nonviable SMEs requiring public support remain. While capital buffers and adequate provisioning limit direct risks to the banking sector, the need by many firms to shore up their balance sheets is likely to constrain corporate investment.

8. Public finances. Korea's practice of maintaining a cautious fiscal stance, motivated by the need to preserve investor confidence alongside the country's open capital account and to deal with uncertain future costs related to demographics and possible reunification with North Korea, has kept government debt below 40 percent of GDP. At the same time the public sector is exposed to contingent liabilities related to loan guarantees estimated at around 10 percent of GDP. SOE gross debt amounts to nearly 30 percent of GDP, but the bulk is held by profitable enterprises and backed by substantial assets.

[2] Household survey data suggest that about one third of the low-income, older, and self-employed households have high debt servicing burdens.

Box 1. Household Debt

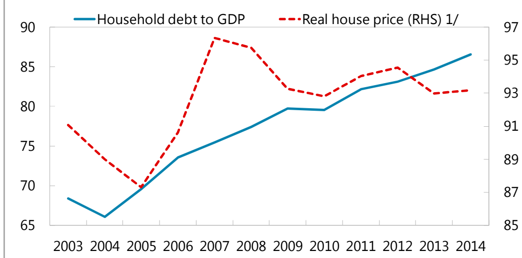
Household balance sheet developments in Korea over the last decade are unique in several ways. As in many other advanced countries, measures of debt-to-income increased steadily in the pre-crisis period. However, this ratio has continued to increase post-2008, in stark contrast to other countries that experienced a long period of household deleveraging following the sharp decline in house prices. Likewise, measured household leverage in Korea has remained low and stable throughout, whereas other countries saw a sharp buildup of financial (non-housing) leverage and a subsequent fall. In fact, Korean households have accumulated more liquid financial assets than debt since 2002, and household net debt (gross debt minus currency, deposits, and financial security holdings) as a share of income has decreased.

Another unique feature of the rise in household debt is that it has continued despite the recent falloff of house price growth (text figure). Rather than reflecting increased borrowing for consumption, this seems to be related to several structural factors affecting household balance sheet composition.

- First, Korea's baby boom generation has begun to retire. As the pension replacement rate remains relatively low, retirees often purchase small businesses, in part financed by bank borrowing, to provide retirement income. The share of household debt held by households in their fifties and older has increased by more than 10 percent in the last decade and may continue to rise as population ages (text figure).

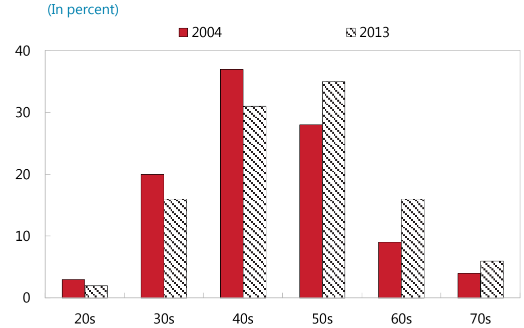
- Second, Korea's unique *chonsei* rental system, in which the tenant loans the deposit (a large share of the property's value, often borrowed from a bank) interest-free to the landlord and lives rent-free, may also lead to higher gross household debt than would otherwise be the case. *Chonsei* currently accounts for almost half of Korea's rental housing market. In recent years its prices have risen sharply against the declining real house prices and *chonsei*-related loans have almost doubled since 2009 (text figure).

Household Debt and House Prices
(In percent)



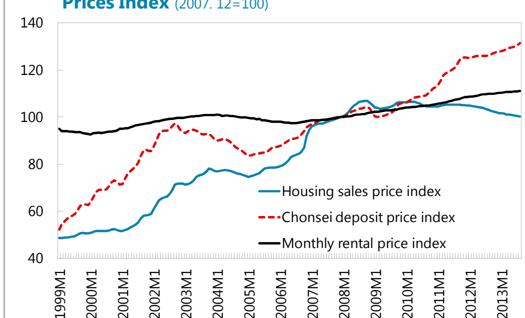
Sources: Haver Analytics; and IMF staff estimates.
1/ Real house price series are the nominal price series deflated by the consumer price index.

Change in Household Debt Distribution
(In percent)



Source: Korea Development Institute.

Seoul Metropolitan House Sales and Rental Prices Index (2007. 12=100)



Sources: Kookmin Bank, Statistics of Korea.

Reflecting Korea's relatively young mortgage market, a large share (about 75 percent) of houses are financed by short term interest only loans, allowing households to accumulate equity in other types of assets instead of paying down mortgage principals. To strengthen the structure of household debt, the government has recently launched a loan conversion program with an aim of increasing the share of fixed-rate and amortizing loans from currently less than 25 percent to 40 percent by 2017. The process of conversion may have the transitory impact of increasing household debt repayment even if it does not affect household net worth.

While the aggregate household balance sheet is relatively stable and rising debt does not pose near-term systemic risks, pockets of vulnerability exist. Previous staff analyses indicate that the share of debt at risk in total household debt is particularly high for certain types of households, namely, older, lower-income and self-employed households. To the extent that these households have relatively higher marginal propensities to consume or are more likely to be liquidity constrained, an increase in household debt service due to higher debt levels and/or higher interest rates may have a negative impact on consumption.

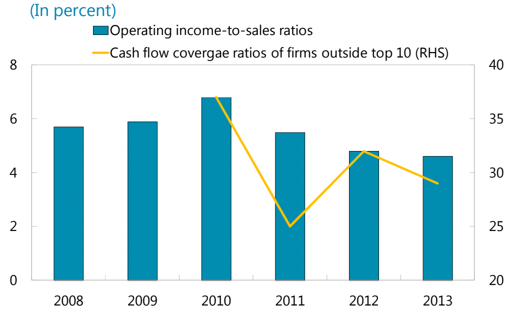
Box 2. Corporate Balance Sheets and the Implications for Investment

Korea's growth momentum has weakened since 2010 partly driven by sluggish corporate investment. Although the sector's aggregate balance sheet does not raise alarms, financial soundness appears to have weakened in the past few years partly due to slowing growth—the growth rate of corporate sales declined from around 17 percent in 2010 to slightly negative in the first half of 2014, the first time corporate sales registered a contraction since the global financial crisis. Corporate income and profits have also become more concentrated in the top-ranked firms.

The decline in corporate growth and rising concentration of income have affected the sector's financial soundness. For firms with high leverage and low profitability and liquidity, their need to shore up their balance sheets will constrain investment.

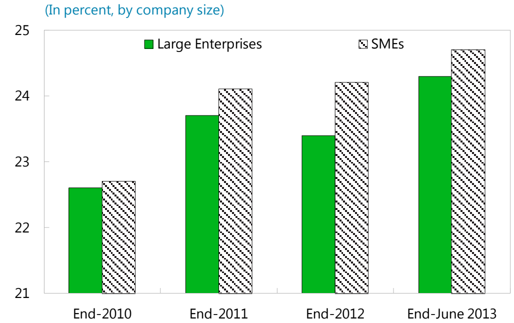
- **Profitability**. Listed companies' operating income-to-sales ratios declined from about 7 percent in 2010 to 5 percent in 2013, even below the levels during the global financial crisis (text figure).
- **Liquidity**. While the top ten firms' cash flow position remains favorable, other firms' capacity to repay short-term borrowings and cover interest expenses have weakened, with their cash flow coverage ratio declining to below 30 percent by the first half of 2013. The liquidity risk has increased particularly in the shipping, ship building and construction sectors with several large firms defaulting on their debt. The average annual corporate bill default rate reached 0.19 in 2014, the highest level since 2001.
- **Leverage.** Although some firms carried out debt reduction in response to the deterioration in growth and profitability, the sector's overall debt burden worsened through the first half of 2013 for both large enterprises and SMEs. The proportion of firms with a debt ratio above 200 percent increased steadily since 2010, reaching 15.5 percent in 2013, before moderating slightly in 2014.

Corporate Profitability and Liquidity Ratios
(In percent)



Source: The Bank of Korea.
Note: The cash flow coverage ratio for 2013 is for the first half of the year.

Corporate Borrowing-to-Total Assets Ratios
(In percent, by company size)



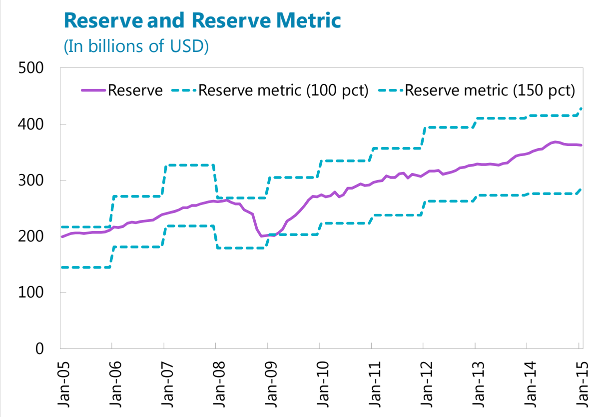
Source: The Bank of Korea *Financial Stability Report* October 2013.

Compared to some other Asian economies, Korea has a relatively high concentration of corporate debt in firms with high leverage, low profitability, low solvency, and low liquidity—almost 20 percent of corporate debt is owed by firms with negative profitability (the second highest in Asia), about 20 percent by firms with an interest rate coverage ratio less than one (Asia's highest), and 40 percent by firms with a current ratio below one (fourth highest).[1] As such, Korea has a relatively large segment of its corporate sector that is vulnerable to interest and profitability shocks.

Staff analysis using annual firm level data that covers 2,200 Korean firms in 1995–2013 quantifies the link between corporate balance sheets and corporate investment in Korea, with regression results showing that high leverage, low cash flow and low liquidity all have significant negative impacts in this period.

[1] IMF *Regional Economic Outlook: Asia and Pacific*, April 2014.

9. External buffers. Korea has built and maintained substantial external buffers since the global financial crisis which could help limit the impact of renewed financial volatility, including a reduced and now modest level of short-term external debt, a positive and growing net foreign asset position, and a stock of international reserves which—based on measures of adequacy—should be sufficient to buffer against a range of possible external shocks (text figure).

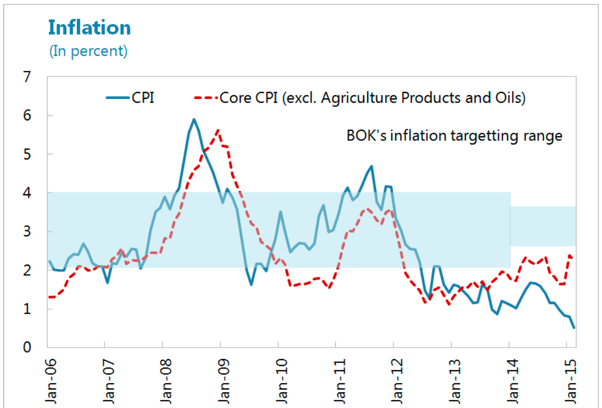


Sources: CEIC Data Company; and IMF staff estimates.

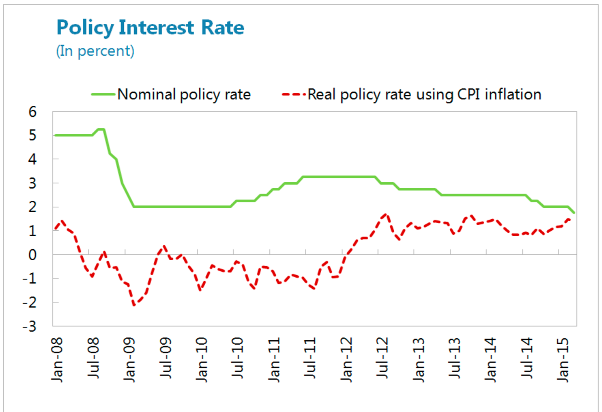
RECENT DEVELOPMENTS

10. Output growth. The growth momentum that had been building since early 2013 has stalled reflecting a continued high savings rate and low investment on the back of sluggish wage growth and falling performance in some major manufacturing industries, and closing the output gap remains elusive. A key turning point was the April 2014 Sewol ferry accident which had a surprisingly large and persistent impact on consumer and investor sentiment as it led to protracted political turmoil more broadly. Recent external developments may have also played an indirect role, with news of slowdowns in China, Japan, and the EU weighing on sentiment. Reflecting this, GDP growth in 2014, although positive at 3¼ percent, fell below potential for the third straight year.

11. Inflation. Headline inflation has fallen to about ½ percent, well below the Bank of Korea's (BOK) target range, in part because of lower oil prices (text figures). The BOK has cut the policy rate several times since August 2014—with the most recent move in March bringing the rate to an historic low of 1¾ percent—citing concerns of a larger-than-expected output gap, low inflation pressure, fragile sentiment, and more recently the need to take pre-emptive action against downside risks. Nominal wage growth data are volatile but show a generally declining trend.

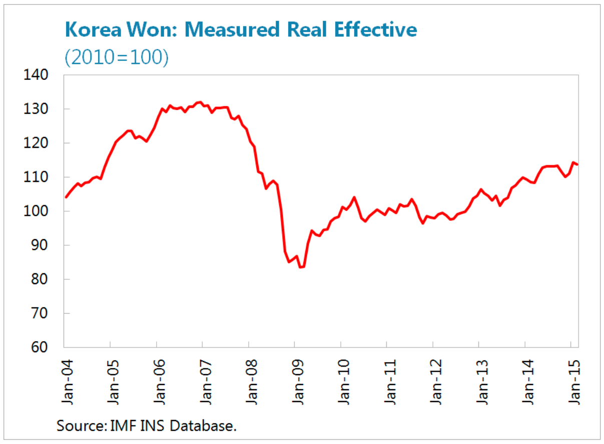


Source: CEIC Data Company Ltd.

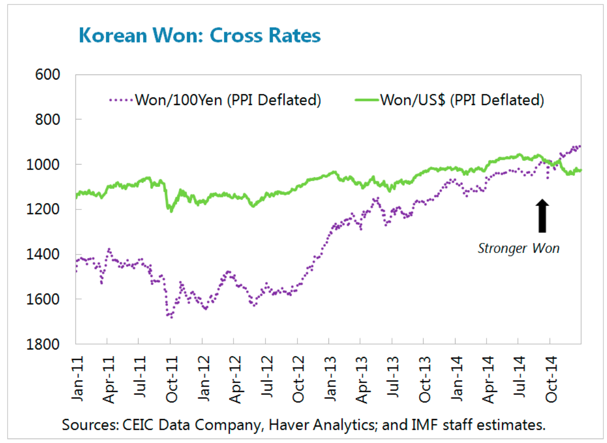


Sources: CEIC Data Company Ltd.; and IMF staff estimates.

12. Exchange rate. The won has been on a gradual, appreciating trending since 2012 on a measured, trade-weighted basis, although this masks important movements in cross rates—in particular, the won continues its climb against the yen, Japan being Korea's main export market competitor, but has weakened against the U.S. dollar in the last several months (text figures). Nevertheless, we continue to assess the exchange rate as being undervalued. After increasing in the first half of 2014, official foreign exchange reserves (including the BOK's forward position) have declined modestly in U.S. dollar terms reflecting valuation losses related to shifts in the relative exchange rates of the major reserve currencies (paragraph 33).

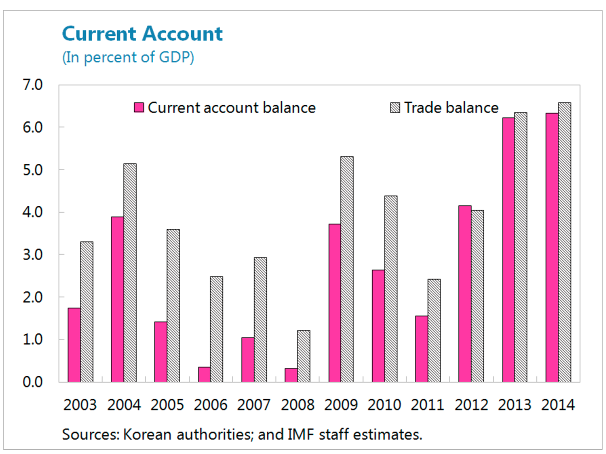


Korea Won: Measured Real Effective
(2010=100)
Source: IMF INS Database.

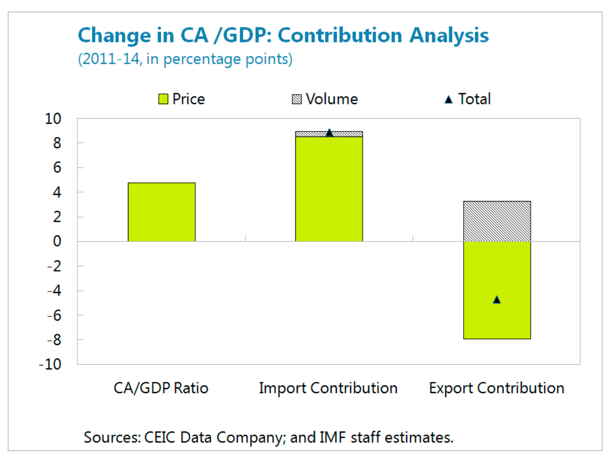


Korean Won: Cross Rates
Sources: CEIC Data Company, Haver Analytics; and IMF staff estimates.

13. Balance of payments. Despite the real appreciation the current account surplus has increased sharply since 2011, reaching 6¼ percent of GDP in 2014, on the back of lower global oil prices and weak domestic demand (text figures). Oil imports alone fell from 8½ percent of GDP in 2011 to 6¾ percent last year, although the net windfall from lower oil prices is estimated to be somewhat lower as many of Korea's export prices (for petroleum products, shipbuilding, and others) tend to move in tandem.[3] Substantially lower domestic investment which generally has a high import component has also played an important role. The counterpart to the higher surplus has mainly been



Current Account
(In percent of GDP)
Sources: Korean authorities; and IMF staff estimates.



Change in CA /GDP: Contribution Analysis
(2011-14, in percentage points)
Sources: CEIC Data Company; and IMF staff estimates.

[3] Korea's oil balance (accounting for exports of petroleum products) is about 3 percent of GDP. The 40 percent decline in oil prices assumed in the baseline for 2015 leads to a first round oil windfall of 1¼ percent of GDP. Historical trends suggest that spillovers to non-oil exports would reduce this windfall by about ¼ - ½ percentage points of GDP.

an increase in corporate retained earnings held abroad. Other capital account developments including portfolio flows have been broadly stable.

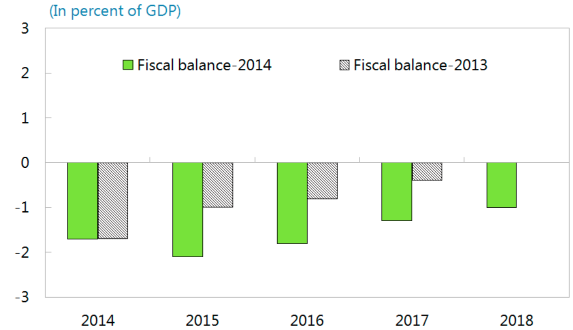
14. Recent policy initiatives. Recognizing the challenging growth environment, the authorities put in place a number of measures to spur economic recovery in addition to loosening the monetary policy stance. These include:

- Direct budget stimulus—about ½ percent of GDP in additional spending in 2014 focused on financial support for home buyers and renters. This was followed by the 2015 budget which allowed for a more broad-based increase including for social spending.
- Increased support for policy-based lending—this includes a capital injection to the Korean Development Bank to support new growth source projects, including those centered on intellectual property, through lending as well as diverse forms of hybrid captial.
- Ad hoc tax measures to incentivize firms to allocate idle cash to wages, dividends, or investments.
- Measures to try to revive a housing market that has been in a multi-year slump including legislation to unwind major regulatory roadblocks for housing reconstruction projects which had been previously introduced to curb house price inflation and speculative demand. In the wake of these measures, together with some unwinding of the earlier tightening of mortgage lending restrictions (paragraph 26), there have been some preliminary signs of a pickup in house prices and transactions volumes.

The policy reorientation also entails stronger expenditure growth over the medium term with the timing of the planned deficit reduction pushed back relative to last year's budget (text figure). This will lift the projected public debt profile only modestly, with debt now expected to peak at 37 percent of GDP. In addition the authorities have put in place or aim to launch a number of initiatives to address structural challenges (paragraphs 37 and 39).

Medium-term Fiscal Management Plan: 2013 vs. 2014 versions

(In percent of GDP)



Source: Korean authorities.

OUTLOOK AND RISKS

15. Outlook. The Korean economy is at crossroads where macroeconomic trends over the coming quarters could have implications well beyond the near term. We currently project output growth for 2015 in a range centered at around 3 percent, where exceeding this midpoint will require a rebound in aggregate demand this year.[4] Recent policy initiatives may succeed in bringing this

[4] The baseline, which is broadly consistent with the BOK's recent downward revision of its 2015 growth forecast to 3.1 percent and the first quarter growth outturn, assumes some gain in growth momentum beginning in the second quarter in part from a modest increase in construction investment and consumption related to the recent easing of monetary and fiscal policy and lower fuel prices. The inflation forecast assumes some base effect increase related to a gradual unwinding of downward supply-side price pressures.

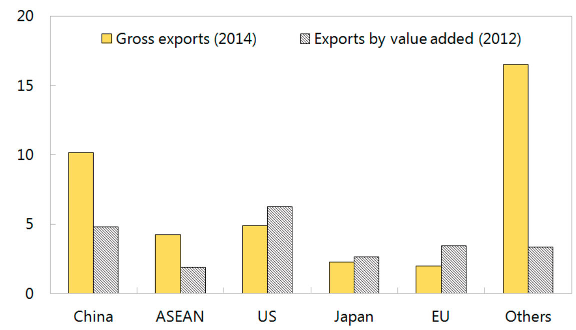
about although it is still too early to gauge their full impact. A rebound in the construction sector, while not yet apparent, could be a possible contributing factor to domestic demand. Inflation is projected to be in the 1–1½ percent range, depending on the one-off impacts of lower oil prices and the recent increase in administered tobacco prices. An increase in underlying inflation, currently hovering around 1 percent, would likely require higher wage growth or a nominal depreciation of the won.

16. Near-term risks and uncertainties. The outlook will depend on a number of uncertain factors (Appendix I). Domestically, households' concerns about future house price and wage growth could continue to weigh on consumption, and business sentiment will remain closely linked to how firms view the external environment, the prospects for a rebound in private consumption, and the future growth potential of the economy. Externally, Korea's highly open economy exposes it to both positive and negative global cross-currents. Specifically:

- Partner country growth—although growth momentum in the U.S. may be building, the outlooks for China (Korea's main export market), the EU, and Japan remain a concern (text figure).

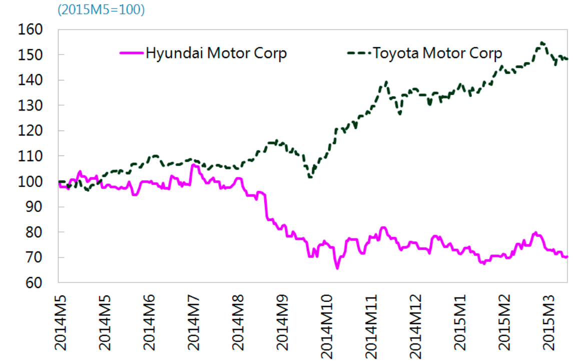
- A persistently weak yen—Korean export volumes have held up so far, but signs suggest weakening prospects, with Korean market share beginning to decline in some industries. Profits and stock prices for the key exporting firms have taken a protracted hit, resulting in downward price pressure on input-providing domestic SMEs (text figure). The recent shift in market expectations that the yen will remain weak for some time could eventually lead to more off-shoring, lower investment in domestic capacity and R&D, and reduced export proceeds. The ultimate effect on Korea's growth outlook is difficult to quantify, as staff analysis suggests that the weak export volume response the short run could mask a more fundamental shift in relative competitiveness which would take some time to materialize (Box 3). At the same time, the strong dollar could provide some buffer.

Exports by Trading Partners
(In percent of GDP)



Sources: OECD; CEIC; and IMF staff estimates.

Hyundai and Toyota Stock Prices
(2015M5=100)



Source: Bloomberg.

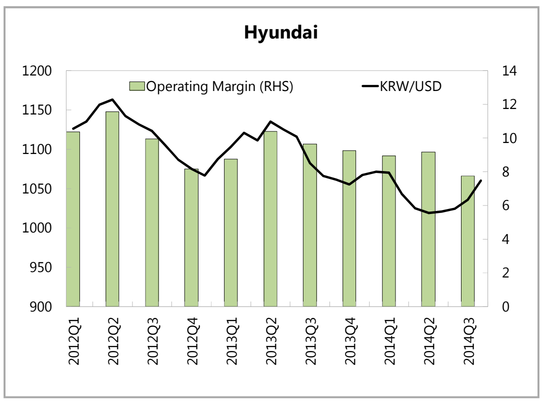
Box 3. Impact of the Weaker Yen on Korea's Exports

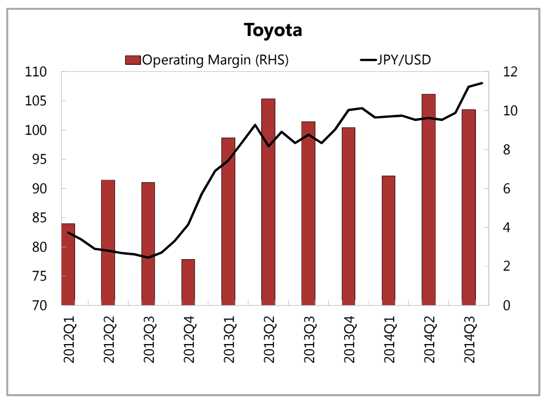
Following the Bank of Japan's launch of its asset purchase program (QQE) in August 2011 the yen has depreciated against the U.S. dollar by over 35 percent and by about 40 percent against the won. More than prices and volumes, the effect has been largely felt in the profit margins of Korean and Japanese exporters. This is in line with historical episodes and econometric analysis which shows a long lag before exports respond to shifts in won-yen cross rates.

Price pass-through. The pass-through of the weaker yen and won to export prices has been timid so far—both Korea and Japan have decreased export prices modestly but this is likely to reflect factors other than exchange rate movements, including the drop in oil prices and the continued trend decline in global prices of electronic products. Price cuts by Japan's exporters have been somewhat higher than Korea's in key sectors where product similarity is high (metal, electronics, and transportation equipment).

Volume response. Export volumes have also been slow to respond. Japan's real export volumes continued to decline until late 2012 before a sharp rebound since late 2014 helped recoup the bulk of the loss. Korea's real exports have largely traced a trend similar to the one before the global financial crisis.

Profit margins. With the limited volume and price response, exchange rate movements have been mostly reflected in higher profits for Japanese exporters and lower for Korean firms. One striking example is the behavior of profit ratios of car makers—since the first quarter of 2012 Hyundai Motors' operating margin decreased by around 20 percent while Toyota's increased by over 60 percent (figures).





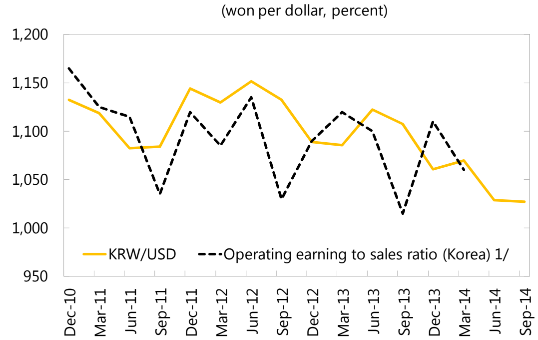
Market share. After rising significantly, Korean exporters' market share has stalled since 2011 with continued gains in three leading export destinations—China, ASEAN, and the United States—offset by broad-based slippages elsewhere. At the same time Japan endured sharp losses across all markets. In terms of product space, Korea has continued to expand its market share in electronics offsetting flat or declining shares in other leading export items, while Japan's market share declined across a broad range of products (figures, next page).

Short- and long-run export responsiveness. The limited price pass-through and high correlation between profit margin and exchange rate movements are in line with exporters' historical behavior where they are slow to change prices in the short-run but do so over time as exchange rate shocks become locked in. This may be related to a range of structural factors for both countries' key export industries (such as electronics and automobiles) including the importance of branding, product cycles, global supply chains, and offshoring of production. In these industries the impact of persistent exchange rate movements is likely to be felt through lagged adjustment in pricing as well as non-pricing decisions such as where to invest new capacity, the level of R&D investment, and others. This is supported by staff's econometric analysis, which finds a low short-run exchange rate elasticity for both countries and across products, with the elasticities increasing over the longer-run.[1] All of this suggests that the muted price and volume response so far to the sustained weakness of the yen may mask a more fundamental shift in the relative competitiveness of Japanese and Korean exporters.

1 "Should Korea Worry about a Permanently Weak Yen?" by Jack Ree, Gee Hee Hong, Seoeun (Thelma) Choi, IMF Working Paper, forthcoming.

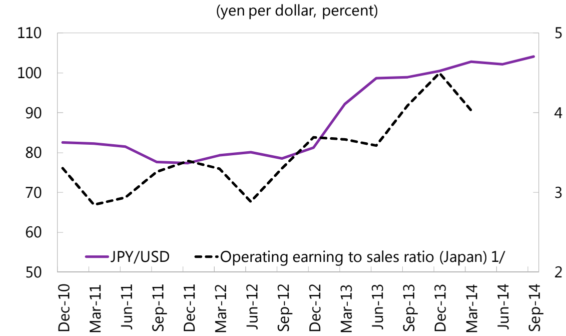
Box 3. Impact of the Weaker Yen on Korea's Exports (Concluded)

Won's exchange rate and profits
(won per dollar, percent)



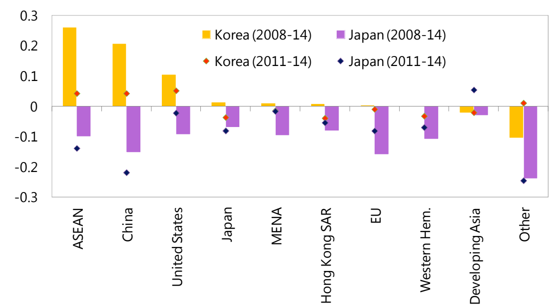
Source: Bank of Korea.
1/ Listed companies.

Yen's exchange rate and profits
(yen per dollar, percent)



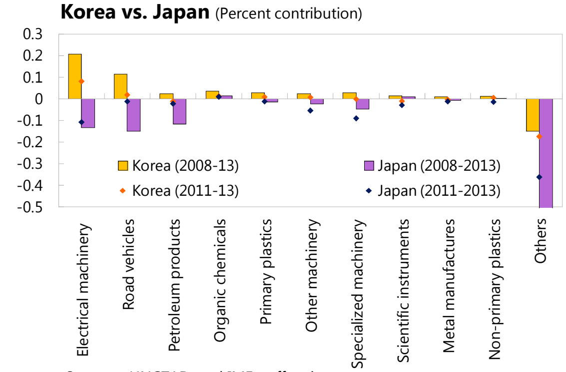
Source: Ministry of Finance, Korea.
1/ Listed companies.

Global Market Share Change Drive by Region
Korea vs. Japan (Percent contribution)



Sources: IMF Direction of Trade; and IMF staff estimates.

Global Market Share Change Driver by Product
Korea vs. Japan (Percent contribution)



Sources: UNCTAD; and IMF staff estimates.

- Lower oil prices—as one of the world's largest importers of oil products Korea is clearly benefiting from lower prices, but it may take some time before this translates into growth. The most significant channel would be through an increase in global purchasing power and corresponding demand for Korean exports, which could in turn lead to firms to invest in new capacity, while the impact on domestic consumption is likely to be relatively modest. At the same time persistently lower prices could reduce already low inflation expectations.

- Exposure to global financial risks—Korea has been less affected than many emerging markets to financial turmoil over the last two years and its relatively strong fundamentals and solid external buffers have led markets to view the country as a "bounded safe haven" where minor shocks to global markets, possibly related to an unwinding of U.S. quantitative easing, could lead to capital inflows. At the same time an open capital account exposes it to the risk of a sudden reversal of capital flows which would likely be accompanied by a fall in asset prices affecting business sentiment and lead to tighter financial conditions for corporates and banks. Allowing the won to respond flexibly would provide a key buffer.

17. Risks of a downside growth and inflation scenario. In this environment there is a risk that a self-reinforcing downside dynamic could take hold where falling inflation expectations keep consumer spending suppressed, which coupled with perceived weak external prospects, leads firms to withhold investments and decrease hiring (Appendix I). Ultimately these expectations could become self-fulfilling and result in significantly slower nominal and real growth relative to the recovery assumed in the baseline scenario. The growth consequences of a downside scenario could be protracted. As seen in many other economies, the expectation of low or negative inflation once entrenched can be very difficult to break and can have long-lasting negative effects on household, corporate, and public sector balance sheets. Many of the reforms needed to shore up potential output over the longer term could be more costly and difficult to implement in an environment of weak economic growth. The likelihood of this scenario may not be high but the costs could be significant.

18. Authorities' views. The authorities agreed with staff that the near-term outlook was subject to uncertainties and risks. Although they recognize that the recovery in domestic demand has yet to take hold, they expected growth to pick up from the second quarter of this year as a result of the lagged effect of the stimulus policies put in place so far including the series of policy rate cuts and the expected dividend from lower oil prices. They remain mindful of the possibility that a weaker-than-expected global environment and continued household and investor pessimism could lead to stagnating or falling nominal and real growth, but at the time of the mission they considered the likelihood of this scenario to be low. Regarding external risks, they viewed capital flows related to an orderly tightening by the U.S. Fed as manageable but remained mindful of the risk that there may be bouts of disruptive financial market volatility. At the same time they recognized that Korea's strong fundamentals—positive growth, current account surpluses, low debt, and solid reserve buffers—make it more resilient to these risks than many other countries with open capital accounts, and viewed the flexible exchange rate as a key shock absorber.

POLICIES TO BOOST GROWTH MOMENTUM

19. Overview. Going forward macroeconomic policy decisions will need to be taken before it becomes clear how effective the measures to stimulate demand already in place prove to be, and whether the stalled growth momentum and weak inflation has shifted or become entrenched. If the global outlook improves, for example, or the housing market gains momentum, it may turn out that the monetary, fiscal, and other policy measures already taken prove more than sufficient. But if consumer or investor caution is allowed to deepen, then additional measures at the margin might not have much power to change the psychology from pessimistic to optimistic. While recognizing that the current uncertainties make policy fine-tuning very challenging, staff argued that the high costs if the downside scenario materializes warrant a more pro-active use of available policy tools than would be called for in a normal cyclical environment, and that the risks of doing too little too late outweigh the risks of doing too much. The lack of clear signs of a recovery of domestic demand would call for additional use of the authorities' fiscal and monetary space. The primary aim would be to send a signal strong enough to shift confidence, which would be aided by a broad-based set of policy actions that are bold rather than incremental.

20. Measures already taken. While the full impact remains to be seen, the measures have not had a material impact on confidence suggesting they may fall short of what is needed. Prospects for recent policy rate cuts to stimulate demand will depend in part on whether they spur households and firms to take on more leverage to consume and invest, and together with steps to deregulate housing investment, lead to a recovery in the housing market sufficient to change savings behavior. While there have been pockets of increased housing market activity recently, the decline in expectations of future price and wage growth may blunt the impact of recent cuts on real interest rates. The budget measures to stimulate demand are relatively modest and the impact of the steps aimed at unlocking idle corporate cash is difficult to predict.

21. Monetary policy. There is scope for monetary policy to take pre-emptive action against downside risks. In an environment where households and firms hold excess cash and postpone spending on the self-reinforcing expectation that wages, prices, and house price growth may continue to be weak, policy rate cuts can help shift incentives away from cash hoarding toward more consumption and investment. The longer expectations become entrenched however, the more policy rates would need to be cut to break this dynamic. With the space to cut limited by the zero lower bound, waiting to see if additional rate cuts are called for runs the risk of reducing their effectiveness if ultimately needed. Concerns about their short run impact on household debt ratios may be counterproductive if withholding monetary stimulus results in weaker nominal income growth, and are better addressed by the government's macro-prudential policy tools for mortgage lending standards (paragraph 26).

22. Fiscal policy. The government's expansionary fiscal policy in the 2015 budget is a step in the right direction for supporting aggregate demand in the near term, and the revised medium-term deficit path is consistent with utilizing fiscal space when needed while preserving longer-term fiscal sustainability. Relatively modest public debt allows the authorities the flexibility to take additional measures if needed to ensure the budget's planned spending program is carried out in the event that weaker-than-expected nominal GDP growth results in revenue falling short of this year's target. Budget support should be broadened where there is scope for temporary measures to boost employment and household incomes in a way that does not run counter to needed structural reforms and longer run fiscal sustainability. The government's efforts to expand policy-based lending with budget support would be most cost-effective for both stimulating demand and increasing productivity if priority is given to the most commercially viable enterprises, including by refocusing public support for SMEs, and in a way that preserves the financial sector's profitability and capital buffers.

23. Structural reforms. The reforms discussed in paragraphs 36–38 should be undertaken as quickly as feasible independent of the near-term macroeconomic outlook. But while most of the reforms will take some time to yield direct growth benefits, maintaining their momentum could have benefits in the near term by shoring up confidence in the economy's long run potential.

24. Authorities' views. The authorities viewed revitalizing the economy as a key near term priority and stood ready to take additional policy actions when needed if growth momentum does not show signs of picking up soon. At the same time Korea's strong dependence on global economic developments and its underlying structural factors make this task more challenging. In particular:

- The BOK recognized that there is still space for further monetary easing if needed, but highlighted a number of considerations. Headline inflation has been pushed down in part by supply side factors including low oil prices, and with survey data showing inflation expectations anchored in the mid-2 percent range it would not be prudent to over-react to inflation falling below target. Also, they argued that many of the factors driving weak demand—low wage growth, consumer and investor caution—reflect not so much cyclical factors as structural rigidities which will need to be addressed through longer-run reforms and will limit the effectiveness of monetary easing on its own. Overall, monetary policy would need to strike a balance between growth and stability, and the bank would need to remain mindful of the possible impact of monetary easing on household debt.
- The Ministry of Strategy and Finance emphasized the role that fiscal policy has been and will continue to play in supporting demand within the boundaries of maintaining fiscal soundness, including through direct budget spending and expanded and refocused policy lending efforts. Unlike many countries with sizeable infrastructure needs, Korea has no clear areas where there is broad-based support for ramping up public spending in the short run. They highlighted slower than initially-projected nominal output growth as a key reason for the budget revenue shortfalls over the last several years, and that achieving the nominal growth target will be important for meeting the revenue target and addressing the increased social spending needs.
- The authorities agreed with staff's assessment that household debt does not pose imminent risks and would like to see debt levels stabilize gradually while avoiding a forced deleveraging which could have adverse impact on growth. The authorities were in broad-based agreement that concerns about household debt would be better addressed through the government's existing tools for setting mortgage lending standards, and that a coordinated approach to monetary and macro-prudential policy would be needed.

FINANCIAL STABILITY AND MACRO-FINANCIAL RISKS

25. Financial sector reforms. The 2013 FSAP found the near-term vulnerabilities of the Korean financial sector to be limited (paragraph 4), and while banks' vulnerabilities to corporate and household exposures appear contained in the near term, further economic weakness could impair the soundness of both sectors. Staff urged progress in addressing the high priority recommendations of the FSAP to further strengthen financial stability analysis and supervision, develop financial market infrastructure, and reform the institutional framework to separate macroprudential policy making from crisis management with the aim of increasing transparency and accountability among the various agencies responsible for economic and financial market policies and ensuring greater political independence (Appendix III). Although the authorities have initiated a number of measures in line with these recommendations, they were reluctant to adopt those requiring more fundamental institutional changes.

26. Macroprudential tools and capital flow management measures. The Korean authorities have a number of tools which they have used with the aim of containing the build-up of systemic vulnerabilities. These include:

- Limits on mortgage lending, including loan-to-value (LTV) and debt-to-income (DTI) ratios, which were introduced in the last decade in response to sharp increases in house price growth. These have been adjusted several times since then as financial stability risks related to housing market conditions change but are currently significantly tighter than when introduced. In line with this policy, the authorities in mid-2014 took a modest step toward unwinding the earlier tightening of these ratios given banks' strong balance sheet position. This step may have also contributed to the recent slowdown in housing-related lending growth by non-bank financial institutions.

- Measures to contain liquidity and foreign exchange vulnerabilities which were introduced when the Lehman collapse exposed the volatile funding structure of the Korean banking system. These include a ceiling on banks' loan-to-deposit ratio, a leverage cap on banks' foreign exchange derivatives positions, and a levy on foreign exchange funding.[5] The FSAP determined that together these measures succeeded in increasing financial sector resilience by reducing exposure to liquidity shocks, reducing maturity mismatches caused by short-term foreign exchange borrowing to finance derivatives purchases, and more generally lengthening the maturity of the financial sector's foreign exchange borrowing, and we continue to assess these measures as appropriately aimed at addressing systemic financial sector stability.[6]

27. Mortgage financing. To facilitate the transition toward a more stable, long-term structure the government recently launched a loan conversion program with the aim of increasing the share of fixed-rate and amortizing loans from currently less than 25 percent to 40 percent by 2017. Staff emphasized that this is best accomplished by further developing the market and regulatory infrastructure that would, through market-based incentives, encourage households and banks to move in this direction. The program involves the provision of new long-term fixed-rate loans funded by the Korea Housing Finance Corporation (KHFC) through their issuing mortgage-backed securities (MBS).[7] The KHFC securitizes all loans brought to its balance sheet before the close of the same day which should limit its exposure to credit risks of the long-term amortizing products. Securities are

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[5] The levy will be expanded to cover non-bank financial institutions and its structure streamlined starting from July 2015.

[6] The costs and benefits of these measures will need to be assessed on an ongoing basis, and they should not substitute for any warranted macroeconomic adjustment. At present, we regard them as effective regulatory tools available for containing risks to systemic financial stability related to the financial sector's foreign exchange transactions and balance sheet positions. In current circumstances their removal would increase the risk of a rebuilding of banks' liquidity and maturity mismatches related to short-term foreign exchange borrowing and hedging activities.

[7] The share of KHFC mortgage loans in total mortgage lending by deposit-taking institutions and public financial institutions rose steadily from around 4½ percent at the end of 2011 to around 8 percent as of end-August 2014.

generally purchased by pension funds looking to match their long-term liabilities. While the program is in its early stages, it is important that its execution be tightly focused on the objective of deepening the market for long-term mortgages and increasing the resilience of housing finance.

28. Authorities' views. The authorities viewed the financial sector as currently sound with banks and non-bank financial institutions having maintained improved asset quality and satisfactory capital adequacy. They expect that the recently launched mortgage loan conversion program will enhance the structure of the mortgage market, and given the already high demand of the program, are confident that they will meet the government's target for increasing the share of fixed-rate and amortizing loans. The authorities acknowledged that the low corporate profitability in some ailing sectors could affect financial institutions' balance sheets, but noted that recent progress in debt restructuring and lower oil prices have brought about improvements in their leverage ratios and operating balances, and the authorities will push for further progress in restructuring going forward. With respect to the 2013 FSAP key recommendations the authorities have implemented various measures to further strengthen financial stability analysis and supervision and financial market infrastructure. They emphasized the important role their macro-prudential policy framework plays in containing systemic risks to financial stability, and viewed the regulatory limits on the financial sector's foreign exchange exposure as a key source of Korea's increased resilience to external market volatility. However, they do not see the need to establish, as recommended by the FSAP, two distinct committees with separate mandates on macroprudential policy and crisis management, viewing the current institutional framework adequate for safeguarding financial stability.

ASSESSING EXTERNAL STABILITY

29. Overview. While Korea has built up large external buffers and does not currently face external sustainability issues, the country's ability to continue growing through a heavy reliance on gaining export market share is increasingly limited while also leaving the economy more exposed to external shocks. This means achieving more balanced, sustainable long-run growth depends on success in closing the large productivity gaps in the non-traded sector, which would be accompanied by a reduced role for net exports as a source of demand-side growth.

30. The current account. The current account in part reflects where Korea is in that process and where it needs to go. In this regard Korea's underlying current account surplus—even after allowing for the transitory effects of the windfall from lower oil prices which is expected to continue to put upward pressure on the surplus in the near term—is larger than would be consistent with the country's economic and policy fundamentals. This gap reflects a number of factors including precautionary savings related to a relatively weak social safety net (Box 4).

31. Policies to address imbalances. An active policy approach to boost near-term aggregate demand and longer-run productivity will also help reduce external imbalances, reinforcing their importance in bringing about a more stable, resilient, and durable structure to the economy. In particular:

- **Structural policies.** Staff scenario analysis suggests that a 0.3 percentage point increase in non-traded sector productivity would increase long-run potential output growth by 0.2 percentage points, and for a given real exchange rate would result in a reduction in the current account surplus of around 1 percent of GDP.
- **Fiscal policy.** The government's more expansionary fiscal policy stance, both this year and over the medium term, could help narrow imbalances, all the more so if coupled with an expanded social safety net that reduces the need for precautionary savings.
- **Exchange rate flexibility.** Even with some closing of the productivity gap, won appreciation over time will likely be needed to bring about a reduction in external imbalances to levels consistent with Korea's fundamentals.

32. Medium-term current account prospects. Korea faces a number of trends that will affect the current account and how it responds to price changes in uncertain ways, making it difficult to pin down the size of Korea's external gap. Korea's unique demographics trends where the expected rapid transition from a relatively young to an old society will take place against the background of what has been a substantial increase in life expectancy might produce a pattern of higher aggregate household savings now that unwinds over time. Whether the oil dividend is saved or spent will depend on how durable households and firms perceive it to be. How the current account will respond to past and future exchange rate movements, including the relationship between the won and yen, is a key uncertainty—staff analysis suggests that Korean export volumes have become highly inelastic to exchange rate movements in the short run, pushing the adjustment into the longer term where forecasting is particularly difficult (Box 3). The longer-run export prospects will also be affected by a number of uncertain structural developments such as product innovation and evolution and entry into the market by newer competitors in China and elsewhere.

33. Exchange rate and foreign exchange reserve policies. Maintaining a flexible exchange rate is essential both as a buffer against external shocks and to facilitate adjustment toward domestic sources of growth and thereby reduce external imbalances, and the won should remain market determined with intervention limited to smoothing excess volatility. The quantity of reserves has increased steadily since the sharp decline in 2008 but has been broadly stable (at around 130 percent) as a share of the IMF's composite reserve adequacy metric during most of this period. Lacking published data, foreign exchange intervention proxies based on changes in stocks or balance of payments data point to periods of net purchases, albeit at levels below those in the first half of 2014, although these proxies should be treated as suggestive given their high degree of uncertainty.[8]

[8] The recent large shifts in cross rates for the major reserve currencies add a high degree of uncertainty to constructed proxies using published data on stocks of reserves in U.S. dollar terms, where estimates of valuation losses are highly sensitive to assumptions about the currency composition of reserves. Our models suggest cumulative intervention since mid-2014 of anywhere from zero to modest net purchases.

Box 4. External Stability Assessment

Foreign asset and liability position and trajectory. Korea's net international investment position (NIIP) increased from -2.9 percent of GDP in 2013 to 5.8 percent in 2014. This position is expected to strengthen further as the current account is in strong surplus. The net external debt position was -16.7 percent of GDP in 2014. Banks' short term external debt remains below the pre-crisis levels, and the risks of currency mismatch are limited as the bulk of the short term external debt is matched with forward hedging activities mainly by exporters. The NIIP position and dynamics present little risk to external sustainability.

Current account. Drawing on various approaches including the IMF's model-based External Balance Assessment (EBA) regression exercise (after adjusting the results to account for various Korea-specific factors), staff assesses the cyclically-adjusted current account surplus in 2014 to be in the range of 2½ to 5 percent above the level consistent with fundamentals and desirable policies. A part of this gap could be accounted for by relatively low public social spending in Korea and the fiscal policy gaps of other countries.[1]

	2014 Current account gap (% of GDP)	2014 REER gap (%)	
Staff assessment	2½ to 5	-13 to -5	
EBA regression estimation			
gap	6.2	0.1 (REER index)	-13.8 (REER level)
of which policy gaps	0.7	-2	-2.1
of which residual	5.4	2	-11.8
cyclically adjusted current account norm	0.9		
External sustainability (ES) approach estimation			
gap	3.7	-14.2	

Real exchange rate. Based on the assessed current account gap and considering other EBA-related regression estimates, the measured, trade weighted real exchange rate (REER) for 2014 is assessed as weaker than the level consistent with fundamentals and desired policies. By precisely how much is subject to uncertainty, particularly given both the difficulty in predicting when and by how much Korea's exports will respond to exchange rate movements (paragraph 32 and Box 3), as well as the diversity of estimates produced by the EBA's exchange rate regression models. Applying a plausible range of elasticities to the current account gap produces a range for the exchange rate gap of 5–13 percent.[2]

Capital and financial accounts: flows and policy measures. With an increase in net portfolio outflows and a decrease in net banking outflows (about 1¾ percent of GDP for both) offsetting each other, the overall net capital flow deficit remained at 5 percent of GDP. A proposed technical change to an existing bank levy, predicted to take effect later in 2015, does not substantially alter the macroprudential policy setting. Overall, Korea's net and gross flows appear sustainable.

FX intervention and reserves level. Korea has a floating exchange rate. The quantity of reserves has been broadly stable as a share of the IMF's composite reserve adequacy metric during most of period since 2008.[3] Intervention should be limited to smoothing excessive volatility. The stock of reserves should be sufficient to buffer against a range of possible external shocks.

Based on the above information staff assesses that Korea's external position in 2014 was substantially stronger than that implied by medium-term fundamentals and desirable policies. Developments as of March, 2015, point to a somewhat stronger external position in 2015.

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[1] Staff's assessment is based on an EBA model which has recently been modified to incorporate changes in the treatment of demographic explanatory variables, which relative to the previous model results in an increase in Korea's estimated current account gap through a corresponding increase in the unexplained residual. Staff interprets this as indicative of the existence of important country specific factors that are not fully captured by the model's variables and cyclical adjustments. After adjusting for these factors, the recent methodological changes to the EBA model do not materially alter staff's assessment of the current account gap.

[2] Staff used the assessed current account gap and applied a range elasticities, both EBA-based and staff's own calculations, as well as information on the REER gap itself coming from the EBA's exchange rate models. EBA exchange rate estimates vary widely, with the "index model" showing a positive gap of 0.1 percent and the "level model" a negative gap of 13.8 percent.

[3] Staff assessment is based on the IMF's framework for assessing reserve adequacy, and accounts for Korea's deepening financial markets.

34. Authorities' views. While agreeing that a narrowing of the current account surplus from its current level would be desirable, and expected as the economy recovers and temporary factors recede, the authorities emphasized that the surplus appears unrelated to a weak exchange rate boosting export competitiveness—indeed, the increase has taken place despite the substantial appreciation of the won in real terms since 2012 and appeared to be driven mostly by the sharp fall in oil prices, weak domestic demand, and changes in demographics. They continue to view the IMF's econometric approaches used in informing the staff's external sector assessment as suffering from a number of methodological and data shortcomings which prevent them from fully capturing key country specific factors such as past experiences of foreign exchange liquidity crises, the speed of population aging, and trade elasticities. While they did not view the exchange rate as undervalued, they agreed that a flexible exchange rate could play a role in reducing external imbalances, but put more emphasis on the role of boosting near-term growth and productivity-enhancing structural reforms in bringing about this transition. In this context they reiterated their policy of allowing the exchange rate to be freely determined in the market with intervention limited to smoothing operations to counter any large fluctuations in flows.

ADDRESSING LONGER-RUN GROWTH CHALLENGES

35. Key structural challenges. The Korean economy faces many well-diagnosed impediments to productivity growth, particularly in the non-traded sectors. These include:

- Low service sector productivity—the ratio of service-to-manufacturing sector productivity in Korea is very low compared to its peers and investment in services has been consistently lagging. There are many reasons for this gap, including regulatory barriers in the sector that impede competition.
- An un-dynamic SME sector—low service sector productivity is closely tied to SMEs as they provide the bulk of services and employ around 90 percent of the workforce. The sector is highly heterogeneous, but includes a myriad of unprofitable firms which, given the de facto social safety net role they play, are kept on life support through government guarantees, subsidies, and protections. This ties up labor, capital, and budgetary resources in low productivity activities and stifles innovation.
- Labor market rigidities and distortions—a number of these lead to underutilization of productive resources. Female labor force participation is low and dips sharply for women aged 30–40 years, an age-linked compensation system encourages firms to push older and more skilled workers into early retirement, and labor market duality—the large and growing gap between the high protection for regular workers, particularly in large manufacturing firms, and over half of the labor force who are self-employed and non-regular workers—leads to higher turnover and lower firm-based training, and hampers the employment prospects of market entrants, largely young people.

36. Structural policy priorities. We see several key priority areas where actions are clearly needed and have the potential to yield the highest long run growth payoff.[9] Many are overlapping and mutually reinforcing, and will contribute to higher productivity while at the same time reducing income inequality (Box 5):

- *Increasing service sector productivity.* Considerable productivity gains could be achieved by promoting competition in health, education, and other protected professions, and by removing regulatory impediments to investment.
- *Making firms more dynamic.* Phasing out government support that sustains unviable SMEs and further progress on restructuring ailing enterprises would free up resources for more productive activities.
- *Reducing labor market rigidities.* This entails addressing gaps in legal protection for regular and non-regular workers, moving to performance- rather than seniority-based wages, reducing incentives for forcing early retirement, and improving unemployment insurance.
- *Increasing female labor force participation.* Options include improving public support for childcare, facilitating part-time work, and enhancing job search and training support.

More generally, strengthening the government's role in providing a social safety net would add to the effectiveness of many of these reforms and make them more politically and socially viable.

37. Government initiatives. The government largely shares these priorities, but as its growth strategy recognizes, tackling these challenges will require far-reaching reforms which should begin now as they may take some time to bear fruit. Particularly important is the government's efforts to support labor market reform momentum following on the May, 2013, tripartite agreement between unions, employers, and the government. Discussions have covered a wide range of areas which have impeded productivity and wage growth, including workforce duality, low labor participation rates, low unemployment and employment-related public support, retirement, and the age-dependent compensation structure. But progress toward bringing about the desired changes will require a process of consensus-building among the stakeholders which will take time and require overcoming significant political and economic hurdles.

38. Tax reform. Korea's relatively low public debt affords it the flexibility—unlike in many other countries—to undertake needed structural reforms that may have short-run fiscal costs, particularly since achieving higher growth potential will have a lasting fiscal payoff down the road. At the same time revenue in Korea is low relative to countries at similar levels of development in part reflecting weak compliance and high levels of exemptions (Box 6). Tax reform focused on broadening the base could generate meaningful revenue gains, helping address future fiscal needs consistent with the government's emphasis on fiscal prudence, and in a way that would reduce rather than increase policy distortions and improve economic productivity.

[9] These are discussed in the 2013 Korea Article IV Staff report, paragraphs 29–35 (IMF Country Report No. 14/101).

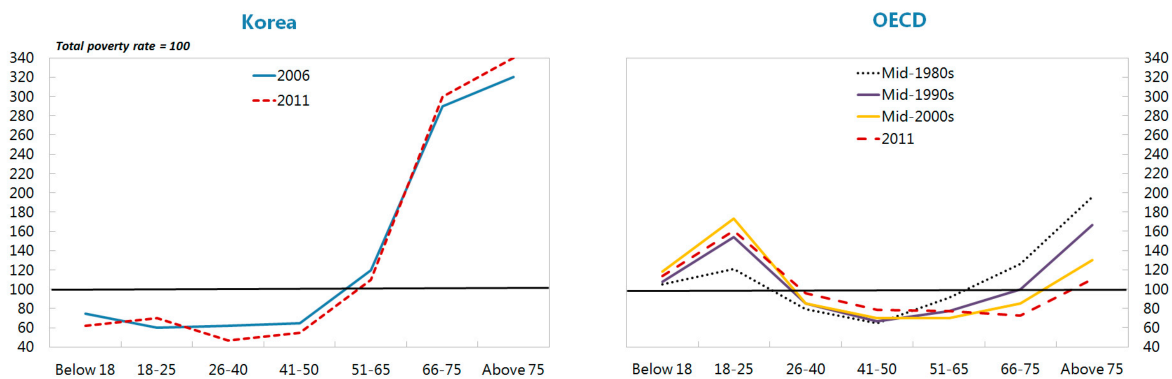
Box 5. Income Inequality in Korea

Korea's standard, composite metrics of inequality such as Gini coefficients are near the average for OECD countries, but underlying these are trends pointing to increasing polarization.

Social mobility. Korea has traditionally been an egalitarian society. Since industrialization began social mobility—including through educational attainments and entrepreneurship—has buttressed Korea's economic success. As Korea's catch up process has matured, however, societal standing has become more entrenched. Studies find that Korea's social mobility is relatively high but falling. They also show that the intergenerational correlations for educational attainment and socioeconomic status have increased in the last decade or so.

Middle class. Perceptions of middle class attainment have changed. Before the 1997 crisis the shared social belief was that a college degree would through a decent job allow anyone to rise to the middle class. In part as the result of Korea's economic transformation after the 1997 crisis (e.g., corporate and bank restructuring), there is now a perception of two extremes in opportunity—lucrative jobs that require exceptional qualifications and mediocre jobs with no easy way to transition from the latter to the former.

Relative Poverty Rates by Age Group 1/



Source: OECD Database on Income Distribution and Poverty

Source: OECD Database on Income Distribution and Poverty.

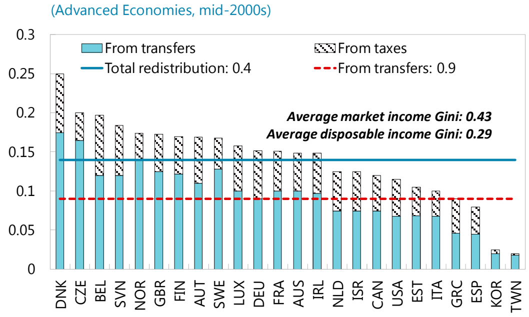
1/ The figure shows the poverty rate for each age group using an index, with the rate for the entire population set at 100. The poverty threshold is set at 50% of median income of the entire population. The OECD average includes 18 member countries.

Elderly poverty. Korea's elderly poverty problem, worst among the OECD, is largely a consequence of (i) an immature social insurance system; (ii) rapid changes in social norms, (iii) shortfalls in retirement savings; and (iv) a substantial increase in life expectancy.

Gender occupational inequality. A combination of weak corporate management support for maternity for working women, a shortage of childcare availability, and increasing competition for forerunning cohorts in early childhood education, result in a sizeable drop in labor force participation for women in the childbearing age group.

Policy remedy? The challenge of rebuilding social mobility and maintaining the middle class is complex and requires coordinated actions in multiple fronts, including structural reforms in the labor market, the educational system, the SME sector, the services sector, and conglomerates. Consideration could be given to role of fiscal policy, where measures of fiscal redistribution are among the lowest in the OECD.

Resdistributive Effect of Fiscal Policy
(Advanced Economies, mid-2000s)



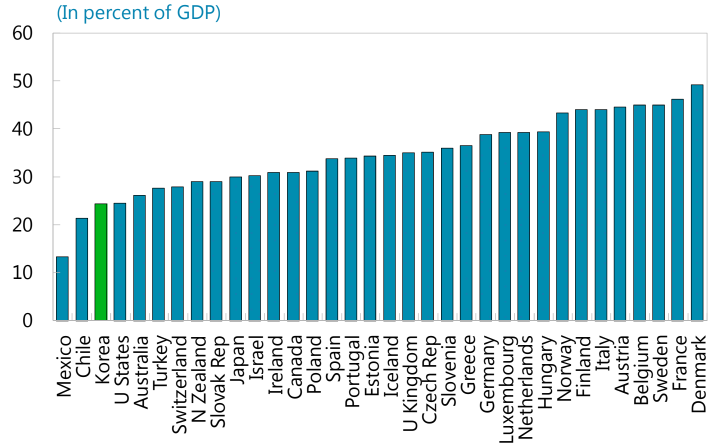
Note: The bar denotes absolute Gini reductions from transfers and taxes.
Source: IMF (2014).

Box 6. Tax Revenues in Korea

Korea's tax revenue is low compared with most OECD countries, reflecting a number of factors and with implications that are broad-based.

Total revenue. Total revenue (including social contributions and local governments) reached 24.3 percent of GDP in 2013. This relatively low level is explained by narrow tax bases, lower tax rates, and potential compliance issues. Using a stochastic frontier tax analysis, staff found that Korea has considerable fiscal space given its relative high level of potential theoretical tax capacity but also importantly due to the low level of tax revenues currently collected.[1]

Tax Revenue for OECD Countries
(In percent of GDP)



Sources: OECD; IMF staff calculations.

Composition of revenue. VAT is the main source of revenue, followed by taxes on income. VAT collections reached 4.3 percent of GDP and accounted for 24 percent of tax revenues (excluding social contributions). Personal Income Tax (PIT) generated 3.7 percent of GDP and Corporate Income Tax (CIT) 3.4 percent. Customs duties represent around 0.8 percent of GDP.

Income inequality. The PIT features a high level of deductions and credits which diminish the progressivity of the tax. The government has recently attempted to curtail personal income tax exemptions, namely by replacing them with tax credits which are less regressive.

Income shifting. The large difference between PIT rates, CIT rates, and rates on capital gains might facilitate avoidance and increase the returns to shifting income artificially across categories. Moreover, the taxation of capital income should aim to achieve the greatest possible degree of neutrality, with the goal of minimizing distortions in the economy. The complexity of the CIT - comprised of three rate levels (10, 20 and 22 percent) depending on the tax base - complicates monitoring and control.

Property taxation. Despite recent reductions, it is still tilted towards taxing transactions, which might create an additional bottleneck to the recovery of the real estate market. Shifting to recurrent taxes on immovable property would also enhance tax efficiency.

With Korea's low revenue and high level of exemptions, there is a case for reforms that broaden the tax base both to increase the efficiency of the tax system while also reducing economic distortions. Staff estimates show that even without changing rates the potential revenue yield could be substantial across a range of tax areas.[2]

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[1] "Understanding Countries' Tax Effort" by R. Fenochietto and C. Pessino, IMF WP/13/244.

[2] "Understanding the Korean Tax Capacity" by Byung Mok Jeon and Ricardo Fenochietto, IMF Working Paper (forthcoming).

39. Authorities' views. The authorities shared staff's views that addressing impediments to productivity growth is essential to supporting Korea's long run potential growth. The government's Three-Year Plan for Economic Innovation for 2015 is led by reforms in four major areas: labor market, finance, public sector, and education. The government is committed to tripartite discussions with unions and employers to advance comprehensive labor market reform and bring about a more flexible and stable labor market, better working conditions for irregular employees, and a more comprehensive social safety net. At the same time, they recognized that building consensus in these areas will take time before leading to the changes in laws, regulations, guidelines, and labor and business practices that affect the structure of Korea's labor market. Other reforms include those aimed at boosting financial sector dynamism by promoting finance-IT convergence, invigorating venture capital, and fostering an economic "ecosystem" where creative ideas can thrive. They also noted that progress has been made in refocusing SME financing and building public-private partnerships for infrastructure investment.

STAFF APPRAISAL

40. The outlook for Korea remains challenging from both a cyclical and structural standpoint. Growth momentum has stalled reflecting sluggish domestic demand, inflation is low, and external uncertainties have increased. From a longer run perspective, relatively weak non-manufacturing productivity has been accompanied by a heavy, and likely unsustainable, reliance on manufacturing exports for growth while also leaving the economy more exposed to external shocks, and the demographic headwinds from a rapidly aging population are beginning to build.

41. The near-term growth outlook is subject to a number of uncertainties and risks. With a highly open economy, Korea faces global cross-currents. Korea will clearly benefit from lower oil prices, although it may take some time before this translates into growth through higher investment and consumption, while the growth outlook for Korea's trading partners is mixed and the prolonged weakness of the yen has been a challenge to some Korean export industries.

42. There is a growing risk of a self-reinforcing downside scenario where the expectation of falling price and wage growth keeps consumer spending suppressed, and coupled with perceived weak external prospects leads firms to withhold investments and decrease hiring. Ultimately these expectations could become self-fulfilling. The growth consequences of such a downside scenario could be protracted, as the expectation of low or negative inflation once entrenched can be very difficult to break, and can have long-lasting negative effects on household, corporate, and public sector balance sheets.

43. Policies should remain focused on shoring up economic momentum. The authorities' recent measures to spur economic recovery including monetary easing and fiscal policy initiatives are steps in the right direction, although it is still too early to gauge their full impact. The cost of getting stuck in a low growth, low inflation trap warrants a more pre-emptive use of available policy tools than would be called for in a normal cyclical environment, and additional steps should be taken if clear signs of a recovery do not emerge soon. There is room for further monetary policy easing if needed and relatively modest public debt allows the authorities the flexibility to broaden public support for the economic recovery while still preserving longer run fiscal sustainability.

44. Korea has built external buffers which enhance the economy's resilience to shocks, and together with exchange rate flexibility, would help limit the impact of any renewed global financial volatility. At the same time Korea's external position is substantially stronger than that implied by medium-term fundamentals and desirable policies. Building growth momentum could have some impact on reducing this imbalance but a more durable reduction will require shifting away from Korea's heavy reliance on manufacturing exports for growth, aided by structural reforms to boost productivity growth in the non-traded sector. This reinforces the need for the authorities to maintain an active policy approach to support the economic recovery and address longer-run challenges, which will help improve the economy's resilience to shifts in the external growth environment. Real exchange rate appreciation over time should also play a role. In this regard, the won should remain market determined with intervention limited to smoothing excess volatility.

45. Korea's financial fundamentals are relatively sound which limits sources of short-run systemic risk. The financial system is broadly stable with solid capital buffers. Overall household debt has been rising but this has been matched by a corresponding increase in household financial assets rather than reflecting an increase in borrowing to finance consumption, and although there are pockets of vulnerabilities, we do not see debt levels as a near term threat to financial stability and the macroeconomy. At the same time, the structure of household debt could be strengthened, and one key challenge will be to facilitate the transition of mortgage market towards a more stable, long-term structure, in line with the government's objective of increasing the share of fixed rate, longer-maturity amortizing mortgages.

46. The government's focus on boosting Korea's future growth potential is welcome and recent initiatives to begin addressing labor market and other rigidities are steps forward on a long road of policy actions that will be needed, and should begin now as they may take some time to bear fruit. Korea's relatively low public debt affords it the flexibility—unlike in many other countries—to undertake needed structural reforms that may have short-run fiscal costs, particularly since achieving higher growth potential will have a lasting fiscal payoff down the road.

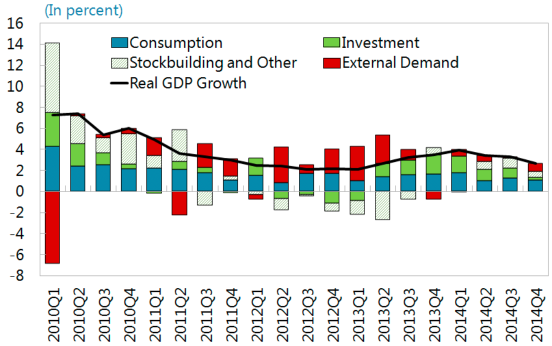
47. Staff recommends that the next Article IV consultation be held on the standard 12-month cycle.

Figure 1. The Real Economy

Growth has been sluggish in 2014 due to weak domestic demand...

Contributions to GDP Growth

(In percent)



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

... with both exports and imports declining in the second half of the year.

Exports and Imports

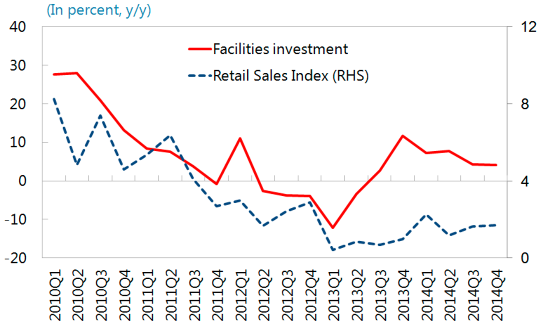
(In percent, yoy, 3-month average)

Source: CEIC Data Company Ltd.

Facility investment growth has weakened and retail sales remain flat...

Retail Sales and Facilities Investment

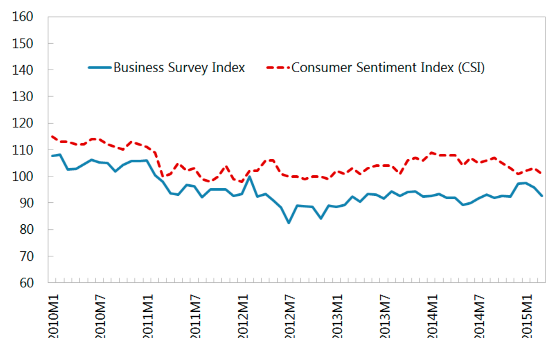
(In percent, y/y)



Source: CEIC Data Company Ltd.

...while business and consumer sentiment indices are stagnant.

Producer and Consumer Sentiment

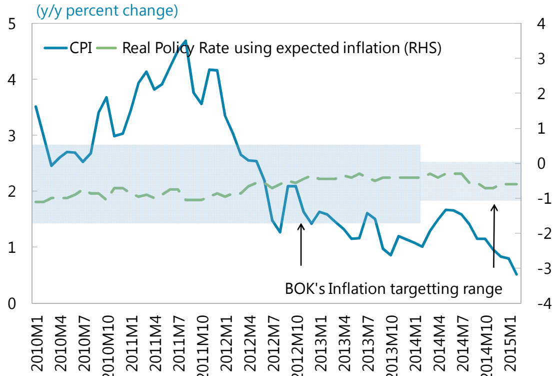


Source: CEIC Data Company Ltd.

Headline inflation has remained below the Bank of Korea's target band since late 2012...

Inflation (2010=100)

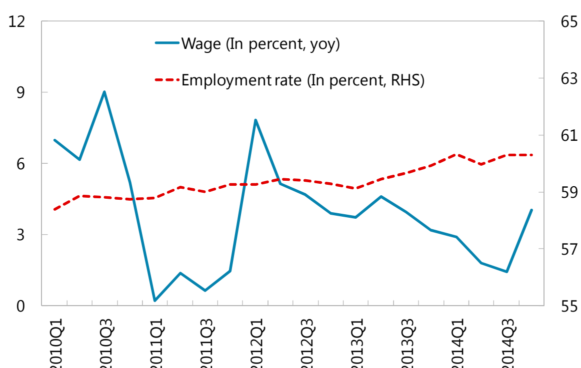
(y/y percent change)



Source: CEIC Data Company Ltd.

...and annual wage growth has been weak.

Labor Market

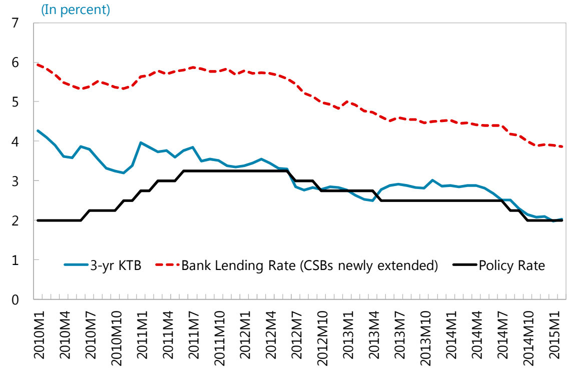


Sources: CEIC Data Company; and Korea Statistics.

Figure 2. Monetary and Financial Sector

Interest rates have declined as the Bank of Korea loosened its monetary policy stance since August 2014…

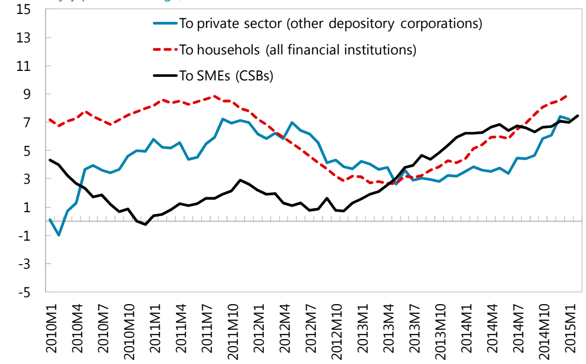
Interest Rate
(In percent)



Source: CEIC Data Company Ltd.

… with private sector credit growth picking up slowly.

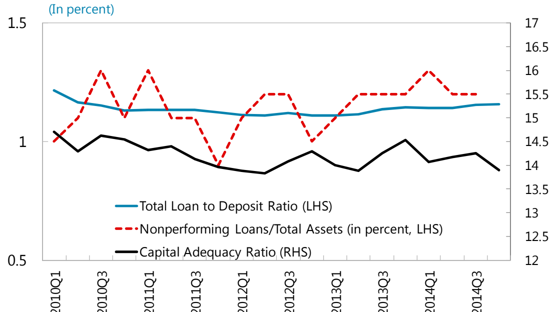
Credit
(y/y percent change)



Source: CEIC Data Company Ltd.

Banking sector soundness remains robust…

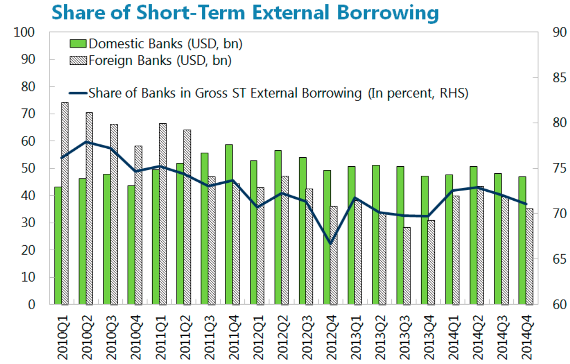
Banking Indicators
(In percent)



Source: Financial Supervisory Service (FSS)
Note: Total loan consists of Bank Account, Trust Account, and Merchant Banking Account.

…and banks' short-term external debt remains below the level during the GFC despite some recent increases.

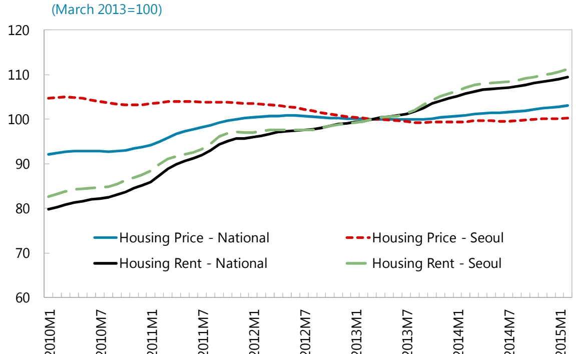
Share of Short-Term External Borrowing



Source: CEIC Data Company Ltd.

House prices seem to be recovering…

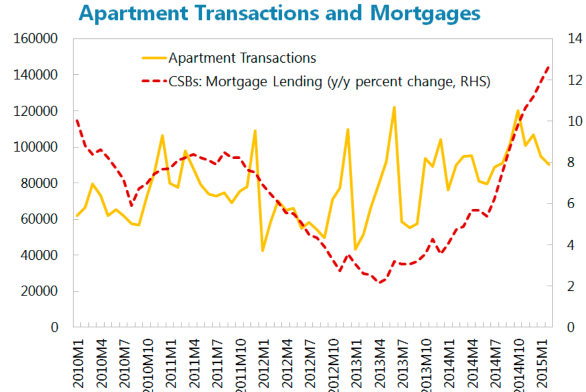
Housing and Rent Price Index
(March 2013=100)



Source: CEIC Data Company Ltd.

…and so does housing market transactions.

Apartment Transactions and Mortgages

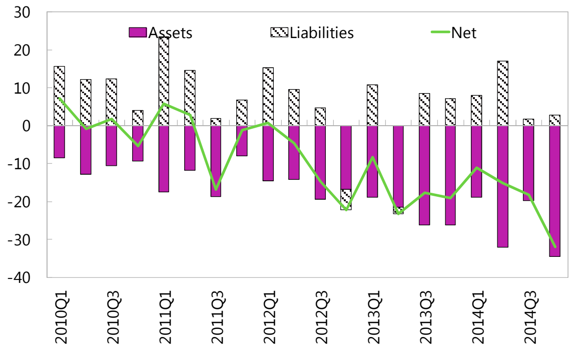


Source: CEIC Data Company Ltd.

Figure 3. External Sector

While overall capital outflows have continued…

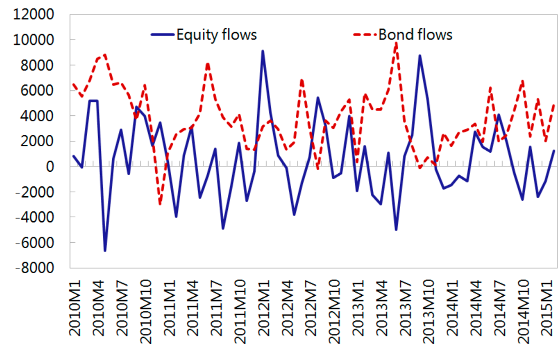
Net Capital Flows
(In billions of U.S. dollars)



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

…inflows into bonds rebounded recently.

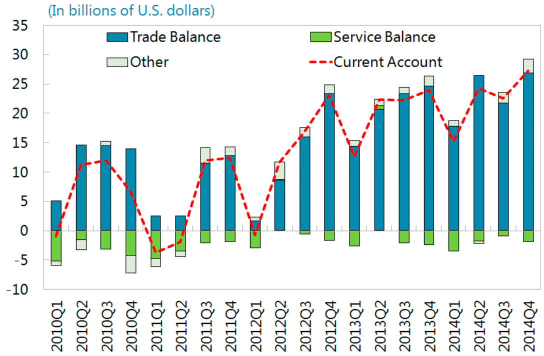
Monthly Net Purchase by Foreigners
(In billions of Won)



Sources: KOSCOM; Bloomberg LP.; and IMF staff estimates.

The current account surplus has continued to rise…

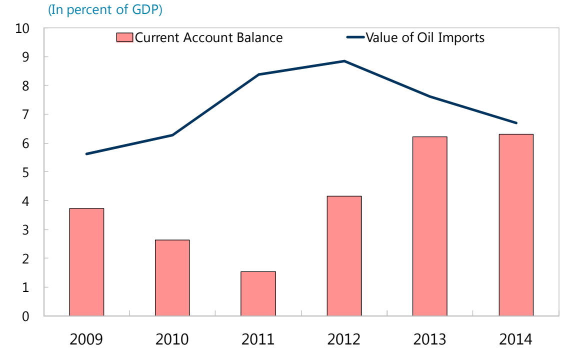
Current Account Balance
(In billions of U.S. dollars)



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

…in part due to the decline in oil imports.

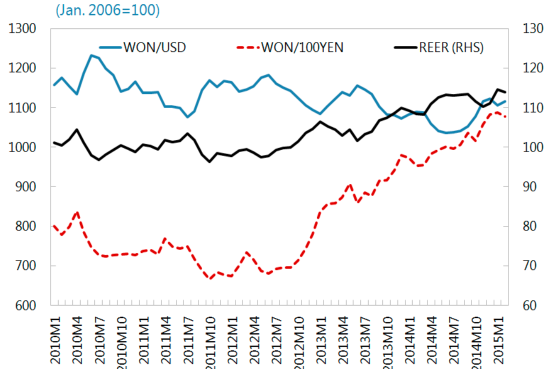
Current Account & Oil Imports
(In percent of GDP)



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

The won has appreciated sharply against the Japanese yen and somewhat in real effective terms…

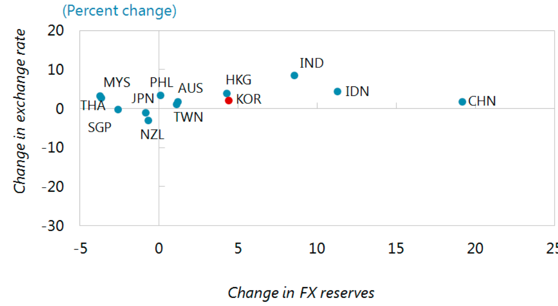
Exchange Rates
(Jan. 2006=100)



Source: IMF APDCORE database.

…and reserve accumulation continued in 2014.

Changes in FX Reserves versus Real Effective Exchange Rate Movements against U.S. Dollar
(Percent change)



Sources: IMF APD Core Database; and IMF staff estimates.
Note: Percentage changes between February 2015 and January 2014.

Table 1. Korea: Selected Economic Indicators, 2012-16

	2012	2013	2014	Projections 2015	2016
Real GDP (percent change)	2.3	2.9	3.3	3.1	3.5
Total domestic demand	1.2	0.7	2.4	2.9	3.4
Final domestic demand	1.4	2.5	2.4	3.4	3.4
Consumption	2.2	2.2	2.0	3.2	3.0
Gross fixed investment	-0.5	3.3	3.1	3.7	4.2
Net foreign balance 1/	1.6	1.5	0.5	1.1	0.4
Nominal GDP (in trillions of won)	1,377.5	1,429.4	1,485.1	1,568.4	1,642.9
Saving and investment (in percent of GDP)					
Gross national saving	35.2	35.3	35.5	35.2	34.4
Gross domestic investment	31.0	29.1	29.2	27.8	28.5
Current account balance	4.2	6.2	6.3	7.3	5.9
Prices (percent change)					
CPI inflation (end of period)	1.4	1.1	0.8	1.6	2.5
CPI inflation (average)	2.2	1.3	1.3	1.2	2.3
Core inflation (average)	1.7	1.6	2.0	1.6	2.5
Real effective exchange rate	1.1	9.1	6.5	...	...
Trade (percent change)					
Export volume	5.6	4.8	4.4	3.8	3.6
Import volume	0.5	4.3	4.7	2.0	3.4
Terms of trade	-1.7	3.3	1.7	4.6	-2.2
Consolidated central government (in percent of GDP)					
Revenue	22.2	21.5	21.5	21.3	21.4
Expenditure	20.6	20.9	21.0	21.0	20.8
Net lending (+) / borrowing (-)	1.6	0.6	0.5	0.3	0.6
Overall balance	1.3	1.0	0.6	0.4	0.7
Excluding Social Security Funds	-1.3	-1.5	-2.0	-2.1	-1.9
Money and credit (end of period)					
Overnight call rate	2.8	2.5	2.0	...	...
Three-year AA- corporate bond yield	3.3	3.3	2.4	...	...
M3 growth	7.8	6.5	8.7	...	...
Balance of payments (in billions of U.S. dollars)					
Exports, f.o.b.	603.5	618.2	621.3	593.5	617.3
Imports, f.o.b.	554.1	535.4	528.6	474.5	503.8
Current account balance	50.8	81.1	89.2	104.8	88.6
Gross international reserves (end of period) 2/	323.2	341.7	358.8	364.4	359.8
In percent of short-term debt (residual maturity)	181.0	203.5	209.7	218.2	219.5
External debt (in billions of U.S. dollars)					
Total external debt (end of period)	408.9	423.5	425.4	426.6	428.8
Total external debt (in percent of GDP)	33.4	32.4	30.2	29.9	28.6
Debt service ratio 3/	7.0	7.2	7.9	8.4	9.0
Real effective exchange rate (level)	99.9	105.4	111.3	...	...

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

1/ Contribution to GDP growth.
2/ Excludes gold.
3/ Debt service on medium- and long-term debt in percent of exports of goods and services.

Table 2. Korea: Balance of Payments, 2012–16

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

	2012	2013	2014	Projections 2015	2016
Current account balance	50.8	81.1	89.2	104.8	88.6
Trade balance	49.4	82.8	92.7	119.0	113.5
Exports	603.5	618.2	621.3	593.5	617.3
(growth rate, in percent)	2.8	2.4	0.5	-4.5	4.0
Imports	554.1	535.4	528.6	474.5	503.8
(growth rate, in percent)	-0.7	-3.4	-1.3	-10.2	6.2
Services	-5.2	-6.5	-8.2	-13.7	-22.6
Income	12.1	9.1	10.2	5.8	4.9
Current transfers	-5.5	-4.2	-5.5	-6.3	-7.1
Financial and capital account balance	-41.1	-68.2	-76.2	-101.3	-95.6
Financial account	-41.0	-68.2	-76.2	-101.3	-95.6
Portfolio investment, net 1/	6.7	-9.3	-33.6	-36.5	-33.5
Direct investment, net	-21.1	-15.6	-20.7	-22.5	-24.4
Inflows	9.5	12.8	9.9	9.9	9.9
Outflows	-30.6	-28.4	-30.6	-32.4	-34.3
Other investment, assets	-8.6	-37.1	-32.2	-40.9	-37.3
Other investment, liabilities	-18.0	-6.2	10.3	-1.4	-0.3
Capital account	0.0	0.0	0.0	0.0	0.0
Net errors and omissions	0.8	-1.0	1.2	0.0	0.0
Overall balance	10.6	11.9	14.2	3.5	-6.9
Financing	-13.2	-16.3	-17.9	-5.6	4.6
Change in reserves (increase -)	-13.2	-16.3	-17.9	-5.6	4.6
Memorandum items:					
Current account balance (in percent of GDP)	4.2	6.2	6.3	7.3	5.9
Trade balance (in percent of GDP)	4.0	6.3	6.6	8.3	7.6
Gross reserves minus gold	323.2	341.7	358.8	364.4	359.8
(in months of imports of goods and services)	5.9	6.4	6.7	7.4	6.8
External debt	408.9	423.5	425.4	426.6	428.8
(in percent of GDP)	33.4	32.4	30.2	29.9	28.6
Short-term external debt (inc. trade credits)	128.0	111.8	115.3	110.0	105.8
Nominal GDP (U.S. dollars)	1222.8	1305.5	1410.8	…	…

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

1/ Includes financial derivatives, net.

Table 3.a. Korea: Statement of Central Government Operations, 2012–16

	2012	2013	2014	Projections 2015	2016
	(In trillions of won)				
Revenue	304.7	308.0	320.0	334.8	351.8
Tax revenue	203.0	201.9	209.8	218.4	229.9
Social contributions	52.0	55.2	57.3	60.5	63.4
Of which: Social security contributions	43.9	46.1	47.9	50.6	53.0
Other revenue	50.5	51.0	52.9	55.9	58.6
Expenditure	283.2	298.7	312.4	329.6	341.9
Expense	272.1	287.0	298.2	314.3	326.1
Net acquisition of nonfinancial assets	11.1	11.7	14.2	15.3	15.8
Net lending (+) / borrowing (-)	21.5	9.3	7.6	5.3	9.9
Less: Policy lending	3.0	-4.9	-1.8	-1.8	-1.8
Overall balance	18.5	14.2	9.4	7.1	11.7
Less: Social Security Fund balance	35.9	35.3	38.9	40.7	43.0
Overall balance excluding Social Security Funds	-17.4	-21.1	-29.5	-33.6	-31.3
Net acquisition of financial assets	37.5	37.5	37.5	37.5	37.5
Domestic	36.8	36.8	36.8	36.8	36.8
Currency and deposits	-0.8	-0.8	-0.8	-0.8	-0.8
Loans	37.6	37.6	37.6	37.6	37.6
Foreign	0.7	0.7	0.7	0.7	0.7
Loans	0.7	0.7	0.7	0.7	0.7
Monetary gold and SDR	0.0	0.0	0.0	0.0	0.0
Net incurrence of liabilities	16.1	28.3	29.9	32.3	27.7
Domestic	16.1	28.3	29.9	32.3	27.7
Foreign	0.0	0.0	0.0	0.0	0.0
	(In percent of GDP)				
Revenue	22.1	21.5	21.5	21.3	21.4
Tax revenue	14.7	14.1	14.1	13.9	14.0
Social contributions	3.8	3.9	3.9	3.9	3.9
Of which: Social security contributions	3.2	3.2	3.2	3.2	3.2
Other revenue	3.7	3.6	3.6	3.6	3.6
Expenditure	20.6	20.9	21.0	21.0	20.8
Expense	19.8	20.1	20.1	20.0	19.8
Net acquisition of nonfinancial assets	0.8	0.8	1.0	1.0	1.0
Net lending (+) / borrowing (-)	1.6	0.6	0.5	0.3	0.6
Less: Policy lending	0.2	-0.3	-0.1	-0.1	-0.1
Overall balance	1.3	1.0	0.6	0.4	0.7
Less: Social Security Fund balance	2.6	2.5	2.6	2.6	2.6
Overall balance excluding Social Security Funds	-1.3	-1.5	-2.0	-2.1	-1.9
Memorandum items:					
Operating balance (trillion won)	32.6	21.0	21.8	20.5	25.7
In percent of GDP	2.4	1.5	1.5	1.3	1.6
Primary balance (trillion won)	24.0	18.1	16.1	22.4	31.6
In percent of GDP	1.7	1.3	1.1	1.4	1.9
Overall structural balance (trillion won)	18.9	16.5	10.3	8.2	12.4
In percent of GDP	1.4	1.1	0.7	0.5	0.8
Nominal GDP (trillion won)	1,377.5	1,429.4	1,485.1	1,568.4	1,642.9
Central government debt (trillion won)	425.1	473.4	518.2	567.9	615.2
In percent of GDP	30.9	33.1	34.9	36.2	37.4

Sources: CEIC; and IMF staff estimates and projections.

Table 3.b. Korea: Integrated Balance Sheet - Consolidated General Government, 2011–14

	2011			2012 2/			2013			2014		
	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/ Opening balance
(In trillions of won)												
Net financial worth			470.7			497.7			458.0			454.0
Financial assets 1/	56.9	6.2	901.5	54.9	9.6	965.9	71.8	171.8	1209.5	68.6	-1.2	1276.9
Currency and deposits	2.0	0.0	86.7	-5.2	0.0	81.5	-1.7	106.7	186.5	-5.6	5.0	185.8
Securities other than shares	17.7	1.2	273.8	23.6	5.8	303.1	14.7	-57.1	260.7	20.2	0.3	281.2
Loans	14.3	4.0	258.1	19.4	-1.4	276.0	-0.6	-87.4	187.9	4.6	-0.1	192.4
Other	23.0	1.0	283.0	17.1	5.2	305.3	59.4	209.6	574.4	49.4	-6.4	617.4
Liabilities	33.6	5.3	430.8	31.7	5.7	468.2	53.2	230.1	751.5	50.5	20.9	822.9
Securities other than shares	34.5	8.1	402.2	29.0	6.6	437.8	42.2	93.5	573.5	31.7	20.2	625.4
Loans	-0.6	0.0	6.4	3.8	0.0	10.1	0.3	0.6	11.0	10.2	0.0	21.3
Other	-0.2	-2.8	22.2	-1.0	-0.8	20.3	10.7	136.0	167.0	8.5	0.7	176.2
Memorandum items:												
Net financial worth (in percent of GDP)			35.3			36.1			32.0			30.6
Change in net financial worth (percent)			5.4			5.7			-8.0			-0.9
Liabilities/Financial assets ratio			0.5			0.5			0.6			0.6
Nominal GDP			1,332.7			1,377.5			1,429.4			1,485.1

Source: Haver Analytics.
1/ As of 2012, the asset of the National Pension Fund stood at 393 trillion (295 trillion won excluding government bond holding).
2/ As of 2012, state-owned enterprises (SOEs) in 2012 held 731.2 trillion won of assets and 493.4 trillion won of liabilities.

Table 4. Korea: Medium-Term Projections, 2013–20

			Projections					
	2013	2014	2015	2016	2017	2018	2019	2020
Real GDP (percent change)	2.9	3.3	3.1	3.5	3.7	3.7	3.7	3.7
Total domestic demand	0.7	2.4	2.9	3.4	4.1	4.1	4.1	4.1
Final domestic demand	2.5	2.4	3.4	3.4	4.1	4.1	4.1	4.1
Consumption	2.2	2.0	3.2	3.0	3.8	3.9	3.9	3.9
Gross fixed investment	3.3	3.1	3.7	4.2	4.8	4.5	4.5	4.5
Net foreign balance 1/	1.5	0.5	1.1	0.4	-0.1	-0.1	-0.1	-0.2
Prices, period average (percent change)								
Consumer price	1.3	1.3	1.2	2.3	3.0	3.0	3.0	3.0
GDP deflator	0.9	0.6	2.5	1.2	1.8	2.0	2.3	2.3
Savings and investment (in percent of GDP)								
Gross national savings	35.3	35.5	35.2	34.4	34.4	34.2	33.7	33.2
Gross domestic investment	29.1	29.2	27.8	28.5	28.8	28.9	28.9	28.8
Current account balance	6.2	6.3	7.3	5.9	5.6	5.3	4.8	4.3
Consolidated central government (in percent of GDP)								
Revenue	21.5	21.5	21.3	21.4	21.5	21.5	21.5	21.5
Expenditure	20.9	21.0	21.0	20.8	20.6	20.4	20.1	19.8
Net lending (+) / borrowing (-)	0.6	0.5	0.3	0.6	0.9	1.1	1.4	1.7
Overall balance	1.0	0.6	0.4	0.7	1.0	1.2	1.5	1.8
Excluding Social Security Funds	-1.5	-2.0	-2.1	-1.9	-1.7	-1.4	-1.1	-0.8
Debt, domestic plus external	33.1	34.9	36.2	37.4	38.1	38.3	38.0	37.4
Trade (percent change)								
Merchandise exports	2.4	0.5	-4.5	4.0	4.7	4.6	5.1	5.0
Volumes 2/	4.8	4.4	3.8	3.6	4.4	4.4	4.5	4.5
Merchandise imports	-3.4	-1.3	-10.2	6.2	7.0	6.4	6.1	6.0
Volumes 2/	4.3	4.7	2.0	3.4	5.3	5.3	5.4	5.4
Balance of payments (in billions of U.S. dollars)								
Current account	81.1	89.2	104.8	88.6	90.1	91.2	89.4	86.7
(In percent of GDP)	6.2	6.3	7.3	5.9	5.6	5.3	4.8	4.3
Trade balance	82.8	92.7	119.0	113.5	107.0	102.4	101.5	100.7
Merchandise exports	618.2	621.3	593.5	617.3	646.3	676.1	710.4	746.0
Merchandise imports	535.4	528.6	474.5	503.8	539.3	573.7	608.9	645.3
External debt								
In billions of U.S. dollars 3/	423.5	425.4	426.6	428.8	432.2	436.7	442.3	449.0
(In percent of GDP)	32.4	30.2	29.9	28.6	26.9	25.4	23.9	22.5
Debt service ratio 4/	7.2	7.9	8.4	9.0	9.5	9.7	9.4	9.1
Memorandum items:								
Nominal GDP (in trillions of won)	1,429	1,485	1,568	1,643	1,733	1,833	1,944	2,062
Per capita GDP (in U.S. dollars)	25,996	27,978	28,166	29,521	31,403	33,557	35,954	38,644
Output gap (percent of potential GDP)	-0.7	-0.3	-0.3	-0.2	0.0	0.0	0.0	0.0

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

1/ Contribution to GDP growth.
2/ Customs clearance basis.
3/ Includes offshore borrowing of domestic financial institutions and debt contracted by their overseas branches.
4/ Debt service on medium- and long-term debt in percent of exports of goods and services.

Table 5. Korea: Financial Soundness Indicators, 2009–14

	2009	2010	2011	2012	2013	2014
Financial Sector						
Total loans *(in percent of GDP)*	120.7	114.4	117.2	117.6	118.8	123.4
Commercial and specialized banks	82.8	78.0	79.8	79.8	80.8	84.2
Other financial institutions 1/	37.9	36.3	37.5	37.7	38.1	39.2
Bank loans *(growth, in % per annum)*						
Large companies	-6.4	15.7	31.8	23.5	5.8	12.3
SMEs	4.8	-0.2	2.6	1.3	5.9	7.1
Households	5.2	5.3	5.6	2.5	3.0	8.1
Banks 2/						
Capital adequacy ratio	14.4	14.6	14.0	14.3	14.5	13.9
Tier 1 capital ratio	10.9	11.6	11.1	11.1	11.8	11.3
Return on assets	0.4	0.5	0.7	0.5	0.2	0.3
Net interest margin	2.0	2.3	2.3	2.1	1.9	1.8
Total loan to deposit ratio 3/	108.9	105.0	103.6	102.4	102.9	103.0
Substandard or below loans (share, in percent)						
Commercial banks	1.2	1.9	1.3	1.3	1.7	1.4
Specialized banks	1.4	2.0	1.5	1.4	1.9	1.8
Mutual savings banks	9.3	10.8	20.1	21.7	21.8	...
Credit unions	3.7	3.7	3.6	4.2	4.6	...
Corporate Sector						
Corporate debt/GDP 4/	159.6	153.8	160.6	161.0	160.0	...
Delinquency ratio (domestic commercial bank loans)	1.0	1.1	1.1	1.2	1.1	0.8
Debt ratio to: 5/						
Equity	116.8	108.3	109.2	101.0	92.9	...
Total assets	25.1	24.6	25.5	25.6	24.5	...
Sales	24.7	22.8	23.0	22.6	23.2	...
Interest coverage ratio	404.1	558.0	486.0	455.4	513.6	...
Current assets/current liabilities	115.7	116.4	116.7	124.4	131.9	...
Household Sector 6/						
Household credit *(in percent of disposable income)*	124.8	127.7	131.3	133.1	134.2	138.0
Of which: Non-bank financial institutions	58.9	62.4	66.0	68.5	71.0	72.2
Delinquency ratio (all bank loans)						
Households	0.5	0.6	0.7	0.8	0.7	0.5
Credit card 7/	1.4	1.3	1.9	2.0	1.8	1.6
Housing prices, percent change	1.5	1.9	6.9	0.0	0.4	2.1
Of which: Seoul	2.7	-1.2	0.3	-2.9	-1.3	0.8

Sources: Bank of Korea; Financial Supervisory Service; and CEIC Data Company Ltd.
1/ Includes merchant banking corp, asset management corp, trust accounts of banks, mutual savings banks, credit unions, mutual credits, community credit cooperatives, and life insurance corp.
2/ Includes commercial and specialized banks.
3/ Includes commercial banks only.
4/ Includes non-financial corporations.
5/ Manufacturing only.
6/ All metrics for houehold sector refer to households, including Non-profit institutions serving households (NPISH).
7/ Over one month.

Table 6. Korea: Indicators of Financial and External Vulnerability, 2011–15

(In percent of GDP, unless otherwise indicated)

	2011	2012	2013	2014	2015	Date
Financial indicators						
Consolidated central government debt 1/	32.9	33.2	35.0	36.5	37.4	Proj.
Broad money (M3, percent change, end of period)	6.6	7.8	6.5	8.7	8.9	Feb-15
Private sector credit (Dep. Corp. survey, percent change, end of period)	6.8	3.7	3.2	7.4	7.5	Feb-15
One-month call borrowing rate (in percent)	3.3	2.8	2.5	2.0	1.7	Mar-15
External indicators						
Exports (percent change, 12-month basis in US$)	26.6	2.8	4.2	1.3	-15.4	Feb-15
Imports (percent change, 12-month basis in US$)	34.2	-0.7	6.0	-1.8	-21.9	Feb-15
Terms of trade (percent change, 12-month basis)	-8.2	-1.7	3.3	1.7	4.6	Proj.
Current account balance (in percent of GDP)	1.6	4.2	6.2	6.3	7.3	Proj.
Capital and financial account balance (in percent of GDP)	-0.8	-3.4	-5.2	-5.4	-7.1	Proj.
Of which: Inward portfolio investment (equity, debt securities, etc.)	1.4	2.7	1.4	0.7	0.6	Proj.
Other investment (loans, trade credits etc.)	1.6	-1.5	-0.5	0.7	-0.1	Proj.
Inward foreign direct investment in the form of debt or loans	0.6	0.6	0.7	0.5	0.7	Proj.
Gross official reserves (US$ billion) 2/	304.2	323.2	341.7	358.8	364.4	Proj.
Central bank short-term foreign liabilities (US$ billion)	8.9	14.9	10.8	12.2	…	…
Short-term foreign liabilities of the financial sector (US$ billion)	102.9	85.4	77.9	81.9	…	…
Official reserves in months of imports GS (projection for full year)	5.5	5.9	6.4	6.7	7.4	Proj.
Broad money (M3)/reserves (ratio)	6.5	7.1	7.3	7.2	7	Feb-15
Reserves to total short-term external debt (percent) 3/	163.0	181.0	203.5	209.7	218.2	Proj.
Total external debt	33.3	33.4	32.4	30.2	29.9	Proj.
Of which: Public sector debt	5.0	5.0	4.8	4.6	…	…
Of which: Short-term debt	11.6	10.5	8.6	8.2	7.7	Proj.
Total external debt to exports GS (percent)	59.0	57.8	58.7	58.4	61.1	Proj.
External interest payments to exports GS (percent)	0.3	0.4	0.2	0.2	0.4	Proj.
External amortization payments to exports GS (percent)	5.8	6.6	7.0	7.7	8.0	Proj.
Exchange rate (per US$, period average)	1,108	1,126	1,095	1,053	1,089	4/7/2015
REER appreciation (+) (12-month basis)	0.1	-0.2	5.5	5.5	5.2	Mar-15
Financial market indicators 4/						
Stock market index (KOSPI)	2128.0	1997.1	1918.7	1989.7	2047.0	4/7/2015
Stock market index (KOSPI, percent change (y/y))	23.3	-6.2	-3.9	3.7	2.9	4/7/2015
Foreign currency debt rating (Moody's/S&P)	A1/A	A1/A	Aa3/A+	Aa3/A+	Aa3/A+	4/7/2015
Credit default swap on government (index)	17.7	15.1	12.1	12.2	9.8	4/7/2015
Cross currency swap spreads (1 year, basis points)	-117.0	-92.4	-83.0	-74.0	-47.5	4/7/2015

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

1/ Including government-guaranteed restructuring bonds issued by KDIC and KAMCO.
2/ excludes gold.
3/ Short-term debt measured on a residual maturity basis.
4/ Values for the trading day in each year corresponding to the reference date in the right most column.

Table 7. Korea: International Investment Position, 2010–13

(In billions of U.S. dollars)

	2010	2011	2012	2013
Assets	697.1	759.5	861.0	967.5
Direct Investment Abroad	144.0	172.4	202.9	238.8
Portfolio Investment	112.2	103.4	137.7	168.8
Equity Securities	81.9	71.7	99.1	123.8
Debt Securities	30.3	31.8	38.6	45.0
Financial Derivatives	27.6	26.7	31.7	23.6
Other Investment	121.7	150.5	161.8	189.9
Monetary Authorities	0.0	0.0	0.0	0.5
General Government	6.5	8.6	8.9	12.1
Banks	78.4	95.6	101.0	130.4
Other Sectors	32.1	41.5	46.3	40.8
Reserve Assets	291.6	306.4	327.0	346.4
Liabilities	828.2	840.6	955.4	1004.8
Direct Investment in Korea	135.5	135.2	157.9	180.9
Portfolio Investment	489.1	477.0	578.1	615.6
Equity Securities	317.0	284.2	363.3	387.9
Debt Securities	172.1	192.8	214.8	227.7
Financial Derivatives	27.4	29.1	30.9	26.4
Other Investment	176.2	199.3	188.5	181.9
Monetary Authorities	3.1	2.5	3.0	3.8
General Government	1.9	1.5	0.5	0.1
Banks	122.2	139.6	122.4	114.8
Other Sectors	44.8	50.9	57.7	58.2

Source: IMF, *International Financial Statistics.*

Appendix I. Korea—Risk Assessment Matrix[1]

Risks	Likelihood and Transmission	Potential Impact
Global Risks		
Side-effects from global financial conditions: A surge in financial volatility	**High** A surge in financial volatility, possibly triggered by asynchronous policy normalization or reassessments of economic fundamentals, could result in a general tightening of global financial conditions.	**Medium** Overall tightening of financial conditions including rising bond yields and falling equity prices would lead to weaker domestic growth. While Korean banks' reliance on foreign wholesale funding has decreased after the GFC, banks would likely face some funding pressures if global financial condition tightens.
Side-effects from global financial conditions: Financial imbalances from protracted period of low interest rates	**Medium** The risks may stem from excessive build-up of corporate leverage, asset-price misalignment and delays in fiscal and structural reforms, which could lead to large negative consequences for economic growth and potential spillovers.	**Medium** Notwithstanding the recent resilience of Korea, side effects from global financial imbalances could lead to a sudden reversal of capital flows and fall in asset prices which would hurt business sentiment and investment. Also, sharply tighter financial conditions could be a drag on growth as financing costs of banks and corporate rise.
Side-effects from global financial conditions: Persistent dollar strength	**High** The relative exchange rates movements could adversely affect the balance sheets of firms with debt service dominated in dollars.	**Low** Korean banks have reduced their short-term external debt after the GFC, limiting the impact of currency mismatches. Korea's exports may benefit from the depreciation against the dollar. On the other hand, there are possible downside growth risks from a persistently weak Japanese yen.
Protracted period of slower growth in key advanced and emerging economies	**Medium/High** Trade (both volume and price) would be the dominant channel, with adverse second round effects on domestic demand.	**High** Deterioration in external conditions could lead to weakening exports and have adverse impact on domestic demand, resulting in higher unemployment and weaker corporate profits transferring into higher credit risks in the corporate and household sectors.
Sharp growth slowdown and financial risks in China	**Low/Medium** A sharper-than-expected growth slowdown in China will have large negative impact on Korea's exports.	**High** This would have a substantial affect on Korean exports, as China is its main trading partner, accounting for about 25 percent of Korea's exports. In addition to direct trade effects, second round effects could come into play as a China slowdown would affect the global economy.
Domestic Risks		
Risks of self-reinforcing downside dynamic taking hold	**Low** The stalled growth momentum and weak inflation, against a difficult and more deflationary global environment, could become entrenched, with household and investor pessimism leading to stagnating or falling nominal and real growth.	**High** As seen in many other economies, the expectation of low or negative inflation once entrenched can be very difficult to break, and can have long-lasting negative effects on household, corporate, and public sector balance sheets. Many of the reforms needed to shore up potential output over the longer term could be more costly and difficult to implement in an environment of weak economic growth.
Risks of high household and corporate indebtedness to financial stability	**Low** Despite the relatively benign aggregate picture, there are pockets of vulnerabilities in household and corporate balance sheets (Box 1 and 2), which could pose risks to financial stability under extreme shocks to macroeconomic growth.	**High** The FSAP suggests that a shock comparable to that faced by an average firm during the 2008 crisis would induce aggregate expected losses comparable to late 2008 levels. A sharp deterioration in the housing market possibly triggered by extreme shocks to the macroeconomy, could also lead to an upsurge in household credit risks.

Risks from North Korea	**Low** On the downside, a sharp rise in geopolitical tensions in the peninsula could potentially escalate and lead to destabilization of the Korean peninsula. On the upside, a peaceful reunification scenario could also materialize.	**High** The fallout of a serious escalation would have a vast impact on South Korea and will be multifaceted, entailing considerable fiscal costs and financial market instability. On the other hand, a peaceful reunification scenario would, while having immediate and possibly large fiscal costs, could confer long term benefits related to access to additional labor input and investment opportunities.

Policy Response: In most of the scenarios related to external shocks, the appropriate policy response would entail utilizing Korea's ample fiscal space and monetary loosening to mitigate the effect. Korea's international reserves should also be sufficient to buffer against a range of possible external shocks. The ability of the won to respond flexibly is also a key buffer, and intervention can be used to smooth excessive exchange rate volatility.

1/ The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path (the scenario most likely to materialize in the view of IMF staff). The relative likelihood is the staff's subjective assessment of the risks surrounding the baseline ("low" is meant to indicate a probability below 10 percent, "medium" a probability between 10 and 30 percent, and "high" a probability between 30 and 50 percent). The RAM reflects staff views on the source of risks and overall level of concern as of the time of discussions with the authorities. Non-mutually exclusive risks may interact and materialize jointly.

Appendix II. Main Recommendations from the 2013 Article IV Consultation and Follow Up

The 2013 Article IV consultation was concluded by the Executive Board on January 10, 2014. At the time, Executive Directors noted that, while a modest recovery is underway, domestic demand remains relatively weak and the output gap is expected to remain negative through 2014. Against this backdrop, Directors considered it important to ensure that the monetary and fiscal stances remain supportive of the recovery until it is firmly entrenched.

Directors commended the authorities for their fiscal prudence. Most of them supported the authorities' current medium term fiscal path to restore a balanced budget, given rapid population aging, contingent liabilities, and geopolitical risks, while others saw scope for somewhat higher deficit targets—implemented prudently—in support of social needs and rebalancing growth toward domestic demand

Noting that Korea's external imbalance is widening and the won is assessed to be moderately undervalued in real effective terms, Directors were of the view that the won should continue to be market determined, with intervention limited to smoothing disorderly market conditions. They supported the authorities' reform agenda aimed at increasing labor force participation, reducing labor market duality and boosting service sector and SME productivity. Directors agreed the financial sector is sound overall and underscored the importance of further improving the supervisory structure, including by strengthening operational independence, group wide supervision, and institutional coordination.

Since then, growth momentum has stalled somewhat. Inflation pressure is low with the headline inflation projected to remain subdued in 2015. Against this backdrop, the authorities have put in place a number of measures to spur economic recovery:

- Direct budget stimulus—about ½ percent of GDP in additional spending in 2014, followed by another increase in the 2015 budget.
- Increase financial support to SMEs (by about 2 percent of GDP) through credit guarantees and lending by policy banks and ad hoc tax measures to incentivize firms to allocate idle cash to wages, dividends, or investments
- Measures to try to revive a housing market including a modest loosening of relatively tight mortgage lending restrictions (reducing LTV and DTI ceilings) and legislation to unwind major regulatory roadblocks for housing reconstruction projects.
- The Bank of Korea cut its policy interest rate three times to 1.75 percent since August 2014.
- The won appreciated by 6.5 percent in 2014 on real effective terms.
- To strengthen the structure of household debt, the government launched a loan conversion program with an aim to increase the share of fixed-rate and amortizing loans from currently less than 25 percent to 40 percent by 2017.

The government also announced in February 2014 a sweeping economic reform agenda that targets a potential growth rate of 4 percent, an employment rate of 70 percent of the population, and per capita income of $40,000 (compared with approximately $24,000 at present).

Appendix III. Implementation of 2013 FSAP High Priority Recommendations

Recommendations	Timing
Overall Financial Sector Oversight and Coordination	
Establish a dedicated and formal macroprudential council, with a stronger role for the BOK, the power to recommend regulatory action on the part of other bodies and transparency over policy deliberations. ***Not initiated.*** *The authorities noted that Korea already has the framework to monitor macroprudence at the regular Macroeconomic Financial Meeting with participants including deputies from the MOSF, FSC, BOK and FSS.*	Medium -term
Strengthen the independence of the FSC and FSS and increase transparency of the allocation of decision-making responsibilities among the two authorities. ***Not initiated.*** *The authorities noted that reviewing and setting measures for strengthening independence is a medium-term project, and decision-making responsibilities among FSC and FSS are stipulated in the laws and regulations.*	Short to Medium -Term
Enhance enforcement effectiveness by broadening the range of administrative and civil penalties and increasing the amount of administrative fines and civil penalties. ***Initiated.*** *The authorities have clarified standards for making accusation and enhanced working-level-review-procedure to be taken before filling accusations. The use of monetary fines also increased.*	Medium -term
Financial Stability Analysis, Stress Tests, and Financial Supervision	
Enhance coordination among agencies involved in stress testing (FSS and BOK). ***In progress.*** *The BOK and FSS are in the process of establishing a communication channel for sharing their stress test results and discussing the related issues.*	Short-term
FSS should carry out a comprehensive validation of banks' stress testing exercise. ***In progress.*** *The authorities revised regulations to provide for banks' stress testing in March 2014 and reviewed banks' implementation of revised regulation in August 2014. The authorities plan to steadily strengthen FSS' validation standards.*	Short-term
Disclose to the public the results of the stress tests conducted by the authorities. ***In progress**. FSS is in the process of reviewing whether to disclose the result of FSS-BOK joint stress testing. The BOK currently conducts macro stress tests to evaluate financial system resilience to various potential risk factors, and discloses their results, if needed, mainly through its Financial Stability Report. Regarding regular disclosure of further detailed results, the BOK is in the process of reviewing this.*	Short-Term
Empower supervisors to set capital ratios above the Basel II minimum, implement all principles of Pillar-2 of Basel II, and extend calculation of Basel II capital to group holding companies. ***Initiated.*** *The authorities are currently undertaking procedure to revise relevant regulation and detailed regulation.* ***Implemented.*** *Financial holding companies are now subject to Basel II capital requirement since the revision of Regulation on Supervision of Financial Holding Companies on February 11, 2014.*	Short-term

Apply regulatory framework consistent with that for banks to all NBDIs, with larger entities also subjected to stricter supervision. ***In progress.*** *For cooperatives their asset classification and loan loss provisioning standards are gradually being enhanced until July 2015. For mutual savings banks, the standards for taking Prompt Corrective Action are gradually being strengthened for large savings banks to be in line with banks in a gradual manner.*	Short-term
Implement a risk-based approach to AML/CFT supervision, and expand supervisory activities to all deposit-taking institutions, and the designated non-financial businesses and professions. ***In progress.*** *The authorities have introduced measures to implement risk-based approach to AML/CFT supervision including (1) implementing RBA to KoFIU's AML/CFT supervision activities; (2) conducting risk assessment on all institutions that made reports in 2013; (3) examining the banking sector based on RBA principles; and (4) reviewing measures to implement RBA examinations in non-banks. The authorities noted that all deposit-taking institutions are now subject to AML/CFT implementation. AML/CFT supervision of DNFBPs currently encompasses only casino businesses.*	Short-term
Ensure sufficiently comprehensive audit oversight and introduce minimum standards for appointing external auditors of banks over and above existing requirements, reflecting expectations of experience and expertise. ***In Progress.*** *On April 30, 2013, FSC submitted a bill to the National Assembly on amendment of Act on External Audit of Stock Companies to give supervisory authorities discretionary power to determine the standards for appointing external auditors of stock companies and financial companies (the bill is currently pending).*	Medium-term
Enhance risk-sensitivity of supervision via more flexible and frequent examinations that also provide sufficient coverage of the smaller supervised entities and enhancement to the judgmental component of the assessments. ***Implemented.*** *For banks, the authorities introduced Examination Improvement Measures in May 2014 and reflected the changes to examination plans and detailed operating plans. For savings banks, the authorities are actively providing consulting on vulnerabilities related to business operation. A team has been set up to monitor whether internal control system is effectively operating on a continuous basis.*	Medium-term
Crisis Preparedness and Crisis Management Framework	
Establish a dedicated apex committee for leading and coordinating crisis preparedness and management work; undertake periodical crisis simulation exercises. ***Not initiated.*** *Crisis preparedness and management work is carried out by a cooperative arrangement involving relevant organizations such as Economic Ministers Meeting.*	Short-term
Replenish the deficit in deposit insurance fund; assure KDIC back-up funding. ***Initiated.*** *The authorities will provide measures on replenishing the deficit in deposit insurance fund, taking into account the results of savings banks restructuring program.* ***Implemented.*** *In accordance with the current KDIC Act, KDIC will have a back-up funding in times of emergency from the government, BOK, insured financial firms and etc.*	Short-term
Address potential moral hazard risks by enhancing banks' risk management; and ensuring that government support is not assured or open-ended. ***Not initiated.***	Medium-term

Systemic Liquidity Management and Financial Market Infrastructures (FMIs)	
BOK to ensure that its crisis management contingency plan adequately covers ELA-related decisions. Put in place a Memorandum of Understanding to ensure effective coordination between BOK and FSC in FMIs matters, and provide BOK with more enforcement tools. ***Implemented.*** *The BOK has its contingency plan for crisis management in place where risk factors in financial and foreign exchange markets are identified in stages of their development and corresponding measures are specified including the overall scheme of emergency provision of liquidity. The BOK considers an adequately-equipped contingency plan as critical for its crisis management, and thereby will continue to further develop more detailed elements of its current contingency plan.*	Short-term
Put in place a Memorandum of Understanding to ensure effective coordination between BOK and FSC in FMIs matters, and provide BOK with more enforcement tools. ***Not initiated***. *The authorities plan to discuss and review measures to enhance efficient cooperation among relevant organizations relating to FMI including the FSC and BOK.*	Short-term
Reform the credit risk and management framework for the securities market, and increase the number of KRX staff managing companywide and CCP-related matters. ***In progress.*** *(1) Revision of the default waterfall for the listed products: a public pre-announcement of legislation of the FSCMA was made by the FSC on October 8, 2014, to revise the default waterfall in line with PFMIs (CCP's skin-in-the-game prior to JCF and assessment power after the depletion of pre-funded resources). Currently, the proposal is on the parliamentary process for the approval of the National Assembly. (2) Shortening the substitute price of listed bonds: in order to improve the adequacy of collateral assessment, KRX reduced the calculation period of the substitute prices of listed bonds from weekly to daily basis in June 2014. (3) Establishment of the stress testing and back testing guideline: KRX articulated the basis for stress test for calculating the JCFs for the listed markets through revision of the Enforcement Rules of the Membership Regulation in November 2014. KRX has enough re-funded assets to cover possible damages from the extreme but plausible stress condition in the securities market. Nonetheless, KRX is planning to expand the total size of JCF in the long term. (4) Increasing the number of KRX staff: on top of the existing company-wide risk management team, KRX is planning to establish a business unit which will be dedicated to monitoring, controlling and managing settlement risks for a more professional and sophisticated management of CCP related risks.*	Short-term

Appendix IV. Korea Public Sector Debt Sustainability Analysis (DSA)

Baseline Scenario (In percent of GDP unless otherwise indicated)

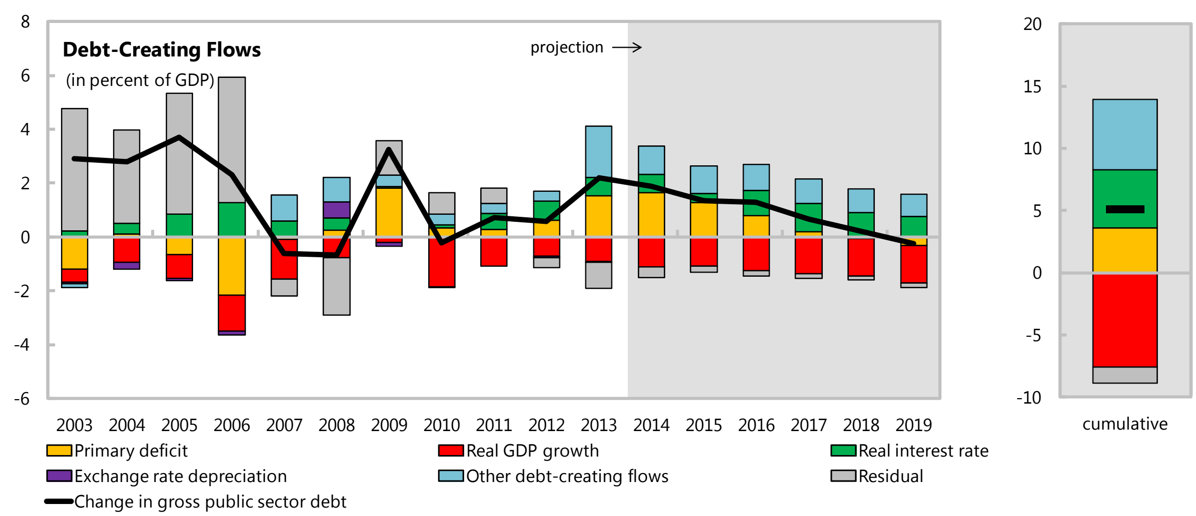
Debt, Economic and Market Indicators [1]

	Actual			Projections					
	2003-2011 [2]	2012	2013	2014	2015	2016	2017	2018	2019
Nominal gross public debt	27.8	32.3	34.5	36.4	37.7	39.0	39.7	39.9	39.6
Public gross financing needs	5.5	5.5	6.6	7.1	6.4	5.5	4.3	4.0	2.9
Real GDP growth (in percent)	4.0	2.3	2.9	3.3	3.1	3.5	3.7	3.7	3.7
Inflation (GDP deflator, in percent)	2.3	1.0	0.9	0.6	2.5	1.2	1.8	2.0	2.3
Nominal GDP growth (in percent)	6.4	3.4	3.8	3.9	5.6	4.8	5.5	5.7	6.1
Effective interest rate (in percent) [4]	4.5	3.4	3.0	2.7	3.5	3.9	4.6	4.5	4.4

As of March 31, 2015		
Sovereign Spreads		
EMBIG (bp) 3/		23
5Y CDS (bp)		52
Ratings	Foreign	Local
Moody's	Aa3	Aa3
S&Ps	A+	AA-
Fitch	AA-	AA

Contribution to Changes in Public Debt

	Actual			Projections							
	2003-2011	2012	2013	2014	2015	2016	2017	2018	2019	cumulative	debt-stabilizing primary balance [9]
Change in gross public sector debt	1.6	0.6	2.2	1.9	1.3	1.3	0.6	0.2	-0.3	5.1	
Identified debt-creating flows	-0.3	1.0	3.2	2.3	1.6	1.5	0.8	0.4	-0.1	6.4	
Primary deficit	-0.1	0.6	1.5	1.7	1.3	0.8	0.2	0.0	-0.3	3.6	-0.6
Primary (noninterest) revenue and grants	17.5	17.1	16.5	16.5	16.3	16.4	16.5	16.5	16.5	98.8	
Primary (noninterest) expenditure	17.3	17.7	18.1	18.2	17.6	17.2	16.7	16.5	16.2	102.4	
Automatic debt dynamics [5]	-0.5	-0.1	-0.3	-0.4	-0.7	-0.3	-0.3	-0.5	-0.6	-2.8	
Interest rate/growth differential [6]	-0.5	0.0	-0.2	-0.4	-0.7	-0.3	-0.3	-0.5	-0.6	-2.8	
Of which: real interest rate	0.5	0.7	0.7	0.7	0.3	0.9	1.0	0.9	0.8	4.7	
Of which: real GDP growth	-1.0	-0.7	-0.9	-1.1	-1.1	-1.3	-1.4	-1.4	-1.4	-7.5	
Exchange rate depreciation [7]	0.0	-0.1	0.0	…	…	…	…	…	…	…	
Other identified debt-creating flows	0.3	0.4	1.9	1.0	1.0	1.0	0.9	0.9	0.8	5.6	
Net privatization proceeds (negative)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
General government debt- change (fudr	0.3	0.4	1.9	1.0	1.0	1.0	0.9	0.9	0.8	5.6	
Residual, including asset changes [8]	1.9	-0.4	-1.0	-0.4	-0.2	-0.2	-0.2	-0.2	-0.2	-1.3	



Source: IMF staff.

1/ Public sector is defined as the general government (excl. social security fund).

2/ Based on available data.

3/ Long-term bond spread over U.S. bonds.

4/ Defined as interest payments divided by debt stock (excluding guarantees) at the end of previous year.

5/ Derived as $[(r - \pi(1+g) - g + ae(1+r)]/(1+g+\pi+g\pi))$ times previous period debt ratio, with r = interest rate; π = growth rate of GDP deflator; g = real GDP growth rate; a = share of foreign-currency denominated debt; and e = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).

6/ The real interest rate contribution is derived from the numerator in footnote 5 as $r - \pi(1+g)$ and the real growth contribution as $-g$.

7/ The exchange rate contribution is derived from the numerator in footnote 5 as $ae(1+r)$.

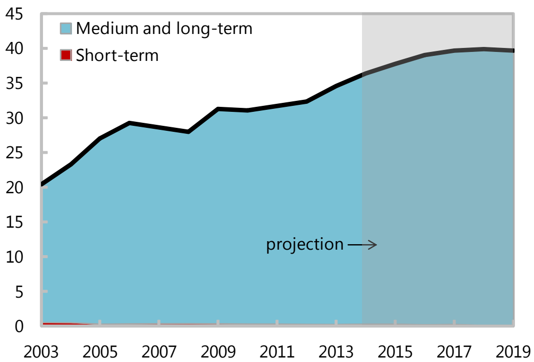
8/ Includes asset changes and interest revenues (if any). For projections, includes exchange rate changes during the projection period.

9/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

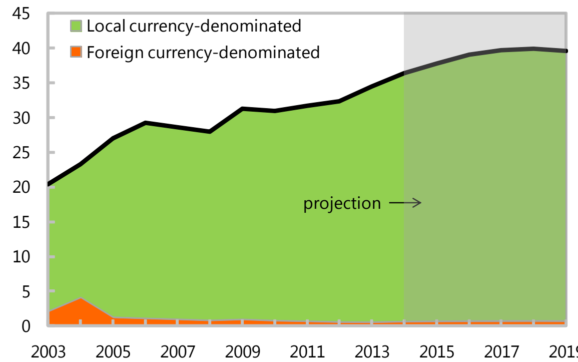
Korea Public DSA - Composition of Public Debt and Alternative Scenarios

Composition of Public Debt

By Maturity
(in percent of GDP)



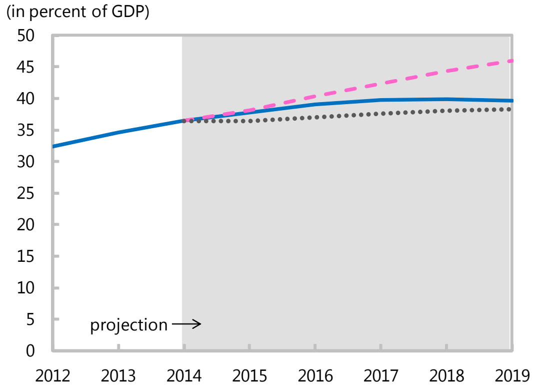
By Currency
(in percent of GDP)



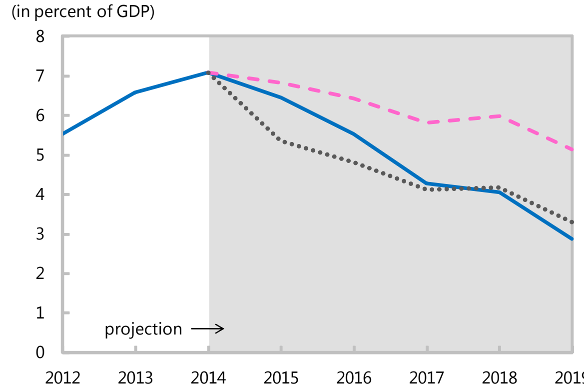
Alternative Scenarios

Baseline Historical Constant Primary Balance

Gross Nominal Public Debt
(in percent of GDP)



Public Gross Financing Needs
(in percent of GDP)



Underlying Assumptions
(in percent)

Baseline Scenario	2014	2015	2016	2017	2018	2019
Real GDP growth	3.3	3.1	3.5	3.7	3.7	3.7
Inflation	0.6	2.5	1.2	1.8	2.0	2.3
Primary Balance	-1.7	-1.3	-0.8	-0.2	0.0	0.3
Effective interest rate	2.7	3.5	3.9	4.6	4.5	4.4
Constant Primary Balance Scenario						
Real GDP growth	3.3	3.1	3.5	3.7	3.7	3.7
Inflation	0.6	2.5	1.2	1.8	2.0	2.3
Primary Balance	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7
Effective interest rate	2.7	3.5	3.9	4.7	4.6	4.6

Historical Scenario	2014	2015	2016	2017	2018	2019
Real GDP growth	3.3	3.8	3.8	3.8	3.8	3.8
Inflation	0.6	2.5	1.2	1.8	2.0	2.3
Primary Balance	-1.7	-0.2	-0.2	-0.2	-0.2	-0.2
Effective interest rate	2.7	3.5	3.8	4.6	4.5	4.4

Source: IMF staff.

INTERNATIONAL MONETARY FUND

REPUBLIC OF KOREA

STAFF REPORT FOR THE 2015 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

April 23, 2015

Prepared By | Asia and Pacific Department

CONTENTS

FUND RELATIONS 2

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FUND RELATIONS

(As of March 31, 2015)

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)	2,972.88	88.31
Reserve tranche position	393.52	11.69
Lending to the Fund		
New arrangements to borrow	674.05	

SDR Department

	SDR Million	Percent Allocation
Net cumulative allocation	2,404.45	100.00
Holdings	2,263.77	94.15

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				
	2015	2016	2017	2018	2019
Principal	0.0	0.0	0.0	0.0	0.0
Charges/interest	0.07	0.09	0.09	0.09	0.09
Total	0.07	0.09	0.09	0.09	0.09

[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). 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).

FSAP and ROSC Participation:

An FSAP update, requested by the authorities, was conducted in April and July 2013. The missions included an assessment of various financial sector standards; the soundness of the financial sector, including vulnerability to macroeconomic shocks; and the crisis preparedness and management framework of Korea. Prior to this, the previous FSAP mission was conducted in October 2002. The Financial System Stability Assessment (FSSA) report for the 2003 assessment has been published (Country Report No. 03/81) and is available on the web at:
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 on the Observance of Standards and Codes (ROSC) 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. Two missions to support reforms related to government finance statistics visited Korea during November 28–December 11, 2007 and November 8–19, 2010, respectively.

Resident Representative:

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

STATISTICAL ISSUES

As of April 10, 2015

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 2008 *System of National Accounts*. Chain-linked (reference year 2010) and nominal GDP estimates are compiled using the production and expenditure approaches; nominal GDP estimates are also compiled using the income approach. The estimation method for expenditure components, which had used the commodity flow method before the revision to reference year 2005, adopted the direct estimation method, in which each expenditure component is measured directly. The size of the informal sector has not been measured.
Consumer Price Index: The Consumer Price Index (CPI) covers 92.9 percent of total households of Korea; it excludes farming and fishing households. The geographical coverage, which includes 37 urban areas, should be extended to rural areas. The consumption basket is updated only every five years; currently, expenditure weights are derived from the *2010 Household Income and Expenditure Survey*. The new CPI index adopts both geometric means and the ratio of arithmetic means. The geometrics means should be used for all unweighted aggregation. The missing prices of products, except for the seasonal items, are imputed by the price movements of similar products of the same item in the same geographic area. However, the CPI could be improved further by imputing missing prices of the seasonal items rather than carrying forward the last reported 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 rebased PPI (2010 = 100) employs 2008 SNA concepts and definitions for the record and valuation of the prices and weights. 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. Mostly, the simple geometric average and the weighted geometric average are employed in the elementary level index compilation. But in some, the indices are computed by the weighted arithmetic average. Nevertheless, 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 followed the recommendations of the *Manual on Government Finance Statistics 1986* until recently. The authorities have embarked on an ambitious program to implement reporting according to *GFSM 2001*, and the first set of financial statements based on the reformed system was released in 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 (MFS) compiled by the Bank of Korea (BOK) broadly follow the IMF's *Monetary and Financial Statistical Manual 2000*. Both liabilities and assets in foreign currencies are converted into Korean Won at the previous business day's trading volume weighted average rate prevailing on the balance sheet date. The data are revalued monthly. The BOK is in discussion with STA about reporting MFS using the standardized report forms (SRFs) and drafting related metadata for publication in the *IFS*. Draft SRFs for the central bank and other depository corporations were reported to STA. 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: The BOK currently compiles the BOP and IIP statistics consistent with the Balance of Payment and International Investment Position Manual, sixth Edition (BPM6) analytical framework (see http://ecos.bok.or.kr/). The BOK has completed the final-stage implementation of the BPM6 in March 2014. 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 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. Korea reports balance of payments and IIP data for the *IFS* (quarterly data) and the *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 SDDS flexibility options for the timeliness of the general government operations, central 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 April 10, 2015)

	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	04/10/2015	04/10/2015	D	D	D		
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1]	Mar. 2015	Apr. 2015	M	M	M		
Reserve/Base Money	Mar. 2015	Apr. 2015	M	M	M	O, O, O, LO	O, O, O, O, O
Broad Money	Mar. 2015	Apr. 2015	M	M	M		
Central Bank Balance Sheet	Mar. 2015	Apr. 2015	M	M	M		
Consolidated Balance Sheet of the Banking System	Mar. 2015	Apr. 2015	M	M	M		
Interest Rates[2]	04/10/2015	04/10/2015	D	D	D		
Consumer Price Index	Mar. 2015	Apr. 2015	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	Jan. 2015	Mar. 2015	M	M	M		
Stocks of Central Government and Central Government-Guaranteed Debt[5]	Jan. 2015	Mar. 2015	M	M	M		
External Current Account Balance	Feb. 2015	Apr. 2015	M	M	M	O, LO, LO, LO	O, O, O, O, O
Exports and Imports of Goods and Services	Feb. 2015	Apr. 2015	M	M	M		
GDP/GNP	Q4 2014	Jan. 2015	Q	Q	Q	O, O, O, O	O, O, LO, O, LO
Gross External Debt	Feb. 2015	Apr. 2015	Q	Q	Q		
International Investment Position[6]	Q4 2014	Mar. 2015	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 liability 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

COMMUNICATIONS DEPARTMENT

Press Release No. 15/217
FOR IMMEDIATE RELEASE
May 13, 2015

International Monetary Fund
700 19th Street, NW
Washington, D. C. 20431 USA

IMF Executive Board Concludes 2015 Article IV Consultation with the Republic of Korea

On May 8, 2015, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation[1] with the Republic of Korea.

Growth momentum that had been building since early 2013 has stalled. Average quarterly growth rate declined to about 0.5 percent in the last three quarters of 2014 from about 1 percent in the previous four quarters. A turning point was the April 2014 Sewol ferry accident which had a surprisingly large and persistent impact on consumer and investor sentiment. Headline inflation has fallen to below 1 percent, well below the Bank of Korea's target band of 2½–3½ percent. Despite some real appreciation the current account surplus remains at around 6¼ percent of GDP, on the back of lower global oil prices and weak domestic demand.

Growth is projected to be in a range centered around 3 percent in 2015, where exceeding the midpoint would require a rebound in aggregate demand during the year, possibly from the lagged effect of the stimulus policies put in place so far and the dividend from lower oil prices. The main external risks include slower-than-expected growth in Korea's main trading partners, the impact of a persistently weak yen on Korean export industries and side-effects from the global financial conditions.

Recognizing the challenging growth environment the authorities put in place a number of measures to spur economic recovery. The Bank of Korea lowered its policy interest rate by 75 basis points since last August to 1.75 percent. The government implemented about ½ percent of GDP in additional spending in 2014, followed by another increase in the 2015 budget. Other stimulus measures include increased support for policy-based lending and measures to revive the housing market.

The resilience of the Korean financial system has increased since 2008 and near-term vulnerabilities are limited. Overall household debt has been rising, but it has been matched by a corresponding increase in household financial assets rather than reflecting an increase in borrowing to finance consumption. Some of the corporate sector financial soundness indicators have weakened recently and the sector is highly segmented with growing pockets of vulnerability.

[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.

Executive Board Assessment[2]

Executive Directors welcomed Korea's ongoing recovery, but noted that the economic outlook hinges on the authorities' success in tackling remaining cyclical and structural vulnerabilities. In particular, sluggish domestic demand is holding back the pace of activity and a rebalancing away from export-led growth, while relatively low productivity in the service sector and a rapidly aging society sap potential output growth. Against this background, Directors generally saw merit in pro-active policies to shore up growth momentum in the near term, together with structural reforms to sustain it over the longer run.

Directors welcomed recent monetary, fiscal, and other policy changes to reinvigorate domestic demand. If clear signs of restored growth momentum from this counter-cyclical support do not emerge soon, additional stimulative policies should be considered to forestall an adverse feedback loop of low or negative inflation and depressed aggregate demand. In particular, Directors agreed that there remains room for further monetary easing, if needed, and that Korea's low public indebtedness provides ample room for additional fiscal stimulus and reinforced social safety nets without prejudice to debt sustainability.

Directors commended the authorities for progress in implementing the recommendations under the 2013 Financial Sector Assessment Program and agreed that Korea's sound financial fundamentals limit sources of short-run systemic risk. Nonetheless, they noted that the structure of household debt could be strengthened through additional steps to facilitate the transition of the mortgage market toward more stable, longer-term lending.

Directors emphasized that the country's ability to continue growing through a heavy reliance on gaining export market share is increasingly limited. They concurred that achieving a more balanced growth path depends critically on addressing long-standing barriers to higher productivity in the non-traded goods and services sectors. Accordingly, Directors welcomed the authorities' plans to boost Korea's growth potential through a variety of reforms including initiatives to address labor market rigidities, support commercially viable small- and medium-sized enterprises, and foster competition.

Directors took note of the staff's assessment that the won appears to be weaker than the level consistent with fundamentals and desired policies, but underscored that methodological shortcomings amplify the uncertainty surrounding such an assessment. In this regard, a few Directors called for more in-depth analysis of Korea's external position and its policy implications. Directors stressed that maintaining a flexible exchange rate is essential to facilitate Korea's adjustment toward domestic sources of growth. Accordingly, they concurred that official foreign exchange interventions should be limited to smoothing excessive exchange rate volatility and not prevent needed exchange rate adjustment.

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[2] 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.

Korea: Selected Economic Indicators, 2010–16

	2010	2011	2012	2013	2014	2015	2016
						Projections	
Real GDP (percent change)	6.5	3.7	2.3	2.9	3.3	3.1	3.5
Total domestic demand	8.5	3.0	1.2	0.7	2.4	2.9	3.4
Final domestic demand	4.7	2.1	1.4	2.5	2.4	3.4	3.4
Consumption	4.3	2.7	2.2	2.2	2.0	3.2	3.0
Gross fixed investment	5.5	0.8	-0.5	3.3	3.1	3.7	4.2
Net foreign balance 1/	-1.3	0.8	1.6	1.5	0.5	1.1	0.4
Nominal GDP (in trillions of won)	1,265	1,333	1,377	1,429	1,485	1,568	1,643
Saving and investment (in percent of GDP)							
Gross national saving	34.7	34.5	35.2	35.3	35.5	35.2	34.4
Gross domestic investment	32.0	33.0	31.0	29.1	29.2	27.8	28.5
Current account balance	2.6	1.6	4.2	6.2	6.3	7.3	5.9
Prices (percent change)							
CPI inflation (end of period)	3.0	4.2	1.4	1.1	0.8	1.6	2.5
CPI inflation (average)	2.9	4.0	2.2	1.3	1.3	1.2	2.3
Core inflation (average)	1.8	3.2	1.7	1.6	2.0	1.6	2.5
Real effective exchange rate	11.4	0.5	1.1	9.1	6.5	...	...
Trade (percent change)							
Export volume	22.3	13.9	5.6	4.8	4.4	3.8	3.6
Import volume	16.7	5.6	0.5	4.3	4.7	2.0	3.4
Terms of trade	-0.9	-8.2	-1.7	3.3	1.7	4.6	-2.2
Consolidated central government (in percent of GDP)							
Revenue	21.0	21.6	22.2	21.5	21.5	21.3	21.4
Expenditure	19.5	19.9	20.6	20.9	21.0	21.0	20.8
Net lending (+) / borrowing (-)	1.5	1.7	1.6	0.6	0.5	0.3	0.6
Overall balance	1.3	1.4	1.3	1.0	0.6	0.4	0.7
Excluding Social Security Funds	-1.0	-1.0	-1.3	-1.5	-2.0	-2.1	-1.9
Money and credit (end of period)							
Overnight call rate	2.5	3.3	2.8	2.5	2.0	...	...
Three-year AA- corporate bond yield	4.3	4.2	3.3	3.3	2.4	...	...
M3 growth	5.9	6.6	7.8	6.5	8.7	...	...
Balance of payments (in billions of U.S. dollars)							
Exports, f.o.b.	463.8	587.1	603.5	618.2	621.3	593.5	617.3
Imports, f.o.b.	415.9	558.0	554.1	535.4	528.6	474.5	503.8
Oil imports	68.7	100.8	108.3	99.3	94.9	59.0	68.9
Current account balance	28.9	18.7	50.8	81.1	89.2	104.8	88.6
Gross international reserves (end of period) 2/	291.5	304.2	323.2	341.7	358.8	364.4	359.8
In percent of short-term debt (residual maturity)	165.7	163.0	181.0	203.5	209.7	218.2	219.5
External debt (in billions of U.S. dollars)							
Total external debt (end of period)	355.9	400.0	408.9	423.5	425.4	426.6	428.8
Of which: Short-term (end of period)	136.5	139.8	128.0	111.8	115.3	110.0	105.8
Total external debt (in percent of GDP)	32.5	33.3	33.4	32.4	30.2	29.9	28.6
Debt service ratio 3/	6.8	6.1	7.0	7.2	7.9	8.4	9.0

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

1/ Contribution to GDP growth.
2/ Excludes gold.
3/ Debt service on medium- and long-term debt in percent of exports of goods and services.

Statement by KwangHae Choi, Alternate Executive Director for Korea and Il Young Park, Senior Advisor May 8, 2015

We thank staff for a well-organized report and their constructive dialogue with the authorities. We appreciate the staff's assessment, which is broadly aligned with the authorities' policy directions.

The Korean economy is now facing challenges on multiple fronts arising from growth deceleration, low inflation, and lagging structural adjustments. Despite proven resilience to the global financial crisis, post-crisis recovery has been sluggish with actual growth falling short of the potential for several years in a row, and also with seemingly diminished effects of policy stimulus. Moreover, as noted in the report, the source of growth has been uneven with exports being the dominant driver while population aging has undermined labor productivity and supply.

However, we firmly believe that Korea still has great potential to grow and prosper given Korean people's strong zeal for economic success and education. Various reforms are being implemented, albeit not as fast as desired, to further improve our growth potential. Firms are keen on improving productivity and undertaking large R&D investments. Workers are more than willing to upgrade their productivity through learning-by-doing and higher-level education. Korea's fiscal position remains strong compared to other OECD members and the government is expanding its role in supporting private economic activities and improving income distribution.

In this vein, we consider the staff's view on the near-term outlook is too pessimistic. While we generally agree with the listed uncertainties, growth is likely to overshoot the 3% growth projection by staff for 2015 given signs of strengthening employment, investment and confidence.

Regarding Korea's financial sector and macro financial stability, we highly appreciate staff's appraisal. Through the continuous efforts with the help of the Fund, Korea has established solid capital buffers, a sound financial system and strong public finances. However, we have a strong concern that the staff assessment of Korea's current account gap is overstated. In particular, we remain concerned that methodological and data shortcomings mean that the assessment has not been able to fully capture relevant country specific factors.

Going forward, we agree with staff's assessments about what needs to be done to lift growth potential. In particular, the staff's assessment is in line with the main thrust of Korea's 'Three-Year Plan for Economic Innovation', which aims at revitalizing the economy through structural reforms, with a focus on public, financial sector, labor market and education reforms. As emphasized by the staff, structural reform should be the focus of our efforts to cultivate our long run competitiveness.

Economic outlook and major policies

Staff projects growth for 2015 in a range at around 3 percent, with greater weight on a number of uncertainties and risks. We understand that the growth forecast is a reflection of the Bank of Korea's recent downward revision. Staff is of the view that it would take some time to see the clear signs of recovery, requiring vigilance to a risk of a self-reinforcing downside dynamic.

Nevertheless, we consider staff projection too timid or even pessimistic for several reasons.

First, staff projections may not adequately reflect most recent high-frequency indicators and some developments in the labor market, which are pointing toward a better improvement in the economy than the staff projected. Specifically,

- Stock price index (KOSPI) has gained by over 11 percent since the beginning of this year while business sentiment index (BSI) improved in April this year compared to Q4 of the last year.
- Real wages are expected to rise further in line with a 7.1 percent increase in the minimum wage. The employment rate also climbed to 65.3% in 2014, up from 64.4% in 2013, and is expected to gain further this year. Higher wages and increased employment would support consumption growth.
- The top 30 corporations plan to increase their investment aided in part by policy initiatives to promote corporate investment (15 trillion won).
- We have seen a rise in new house sales since Q1 of this year, a positive sign for a rebound in the construction sector.

In addition, we agree with staff that external uncertainties remain high this year. But an upturn in global trade volume this year would have a positive impact on Korea's exports. For instance, exports of mobile phones, one of Korea's major export products, would likely benefit from the improved global market conditions.

We would like to highlight that the Korean authorities have ample policy space to maneuver. The Korean authorities have already taken numerous measures to boost domestic demand through macroeconomic policies. The FY 2015 budget envisaged a more expansionary fiscal stance with front-loading of fiscal spending. To be specific, about 60 percent of the budget will be disbursed in the first half of the year. The Bank of Korea has cut the policy rate three times since August 2014 to 1.75 percent at present. The authorities stand ready to take further pre-emptive actions if deemed necessary.

Last but not least, the downward revision of growth projections is quite large for Korea, compared to other major countries. Staff revised growth projection down to around 3 percent from 4 percent of the last October WEO. The staff report should be clearer about what underlies such sharp downward revision. We are worried that pessimistic projections could trigger self-fulfilling dynamics, throwing cold water to already weak sentiments.

Macro-financial stability and resilience

We appreciate that the staff report delivers a strong message that the Korean economy is equipped with effective firewalls in many respects. We concur with the staff view that macro-financial stability is sound, and both the financial and external sectors are resilient to possible shocks at the aggregate level.

- As the 2013 FSAP found, the assets of financial institutions are prudently managed with levels of capital being well above regulatory requirements. Financial sector regulation and supervision is competent, within frameworks that are generally comparable to global standards. Financial intermediation is robust.

- Staff assessed that external buffers remain adequate, helping limit the impact of renewed financial volatility, and the external vulnerabilities in the financial system have diminished due to macro prudential measures.

- Regarding rising household debts, staff rightly assessed that household debt was not a near-term threat to financial stability, as rising debt has been matched by a corresponding increase in household financial assets.

We particularly welcome staff's favorable recognition of effectiveness of macro-prudential policies in Korea as well as and their agreement that these measures should remain in place at this juncture. As staff rightly pointed out, macro-prudential measures, adopted as complementary measures to macroeconomic policies, have successfully contained the build-up of systemic vulnerabilities in financial markets as well as the external sector. Macro-prudential measures have also complemented macroeconomic policies in the course of dealing with the global financial crisis, enabling the authorities to safeguard sufficient policy space for macroeconomic management. The authorities will stand ready to carefully monitor macro-financial risks and remain flexible in adjusting macro-prudential policies to evolving market conditions while being mindful that they should not substitute for needed macroeconomic policies.

Staff pointed out that pockets of risks exist. However, with adequate macro- and micro-prudential regulations being in place and the balance sheets of market participants being generally prudent, the Korean authorities are continuing efforts to further solidify macro-financial stability and resilience as we are shifting toward a more balanced growth model.

First, staff rightly pointed out the need to improve the structure of household debt, a large portion of which is comprised of floating-rate interest-only mortgage loans with short maturities and bullet repayment. We remain vigilant to monitor the pace of the increase in household debt and the soundness of its structure. The authorities will continue to maintain the current strong macro-prudential toolkits, including LTV and DTI measures, to prevent systemic risks from building up. Structural vulnerabilities in mortgage finance have declined recently, aided by the successful wrap up of a loan conversion program in April 2015. The loan conversion program, targeting only the most vulnerable borrowers converted high-risk floating-rate mortgage loans with bullet repayments into much safer fixed-rate and amortizing loans. About 8 percent of total mortgage loans benefited from the program. Going beyond such a one-off measure, the authorities are undertaking various policy efforts to deepen the mortgage market and strengthen related market institutions.

Second, with regard to the corporate sector soundness, staff appraised that many financial soundness indicators have weakened recently and corporate income and profits have become increasingly concentrated in the top-ranked firms, although aggregate corporate leverage was relatively modest. We consider that the corporate sector as a whole is healthy with large enterprises being generally sound and profitable. While there are a number of marginal firms, they are likely to go through financial restructuring. In order to promote and expedite an on-going corporate restructuring, the authorities are preparing for an amendment to the Corporate Restructuring Act aiming at streamlining restructuring procedures and encouraging market-based incentives for debt restructuring. In Box 2, staff presented that, compared to other Asian countries, Korea has a high concentration of corporate debt in firms with low profitability and high leverage. We are not convinced by the simple comparison and assessment with other Asian countries which may be at different level of development.

Third, while staff assessed the current account gap widened relative to last year based on application of new EBA approach, we suggest cautious interpretation of this result in light of limitations in the methodology. As staff rightly noted, the increase in the surplus has been largely driven by a decrease in imports due to slower growth and a fall in global oil prices. Forward-looking caution in consumption from anticipating the decrease in working age population from 2016, has also contributed to decrease in imports, not to mention the lower domestic investment by large Korean enterprises in the course of increasing overseas investment as part of a process of off-shoring production. However, we do think that the EBA approach does not adequately take into account these country specific factors, let alone the limitations of the model that staff correctly admitted in footnote 1 in Box 4. Regarding the exchange rate gap, we also see scope for improving accuracy of assessment by applying a lower elasticity in accordance with the staff assessment in Box 3 of the high inelasticity of Korean export volumes to exchange rate movements.

While the current account registered large surpluses in recent years due to many country-specific and global factors, in line with staff advice, we expect external imbalances to gradually narrow as GDP gap closes. At the policy level, various efforts have been undertaken to stimulate domestic demand and keep the exchange rate to be determined by the market. As a related matter, we welcome staff's presentation in Box 3 of the impact of the weaker yen on Korea's exports as it suggests how future exports of Korea would develop if devaluation of yen persists.

Structural reform

We share the staff's view that structural reforms are warranted. As pursued by 'The Three – Year Plan for Economic Innovation', the Korean authorities have clearly defined that the directions and measures of our reform are comparable to the staff's assessment. In particular, as suggested by the staff, our reform efforts have focused on addressing low service sector productivity, un-dynamic SMEs and labor market rigidities and mismatches.

We note staff's analysis that considerable gains could be achieved by increasing service sector productivity in the area of health, education and other protected professions. The priority of our policies lies in promoting competition through further deregulation. Removing barriers to market entry and promoting innovation and investment are major policy goals, and to that end, the authorities are promoting competition in major high value-added service sectors, including medical, tourism, education and financial services. The differential tax treatment of service sectors relative to the manufacturing sector will also be removed.

While staff proposes to phase out the credit guarantee support to SMEs, we note that the current SME credit guarantee support does not function as a life-support for unviable SMEs given that such support is predicated on the viability of an SME. Consideration also needs to be given to the fact that SMEs are a critical part of the value chain and also represent a de facto social safety net. We are systematically reviewing the SME credit guarantee system in order to enhance efficiency and eliminate redundancy among public guarantee providers.

Regarding labor market reforms, as staff report properly pointed out, reducing market rigidities and increasing female labor force participation are key priorities. We are setting up implementation plans following the high-level tripartite agreement in December 2014. The implementation plans will encompass measures to abolish discrimination against non-regular workers, reform unemployment insurance and promote youth employment. The education reform is also being pursued to close skill mismatches by improving vocational training and coordination between industries and universities. Various measures are being taken to promote female force participation in the labor market, including public support for childcare.

In addition, we are pursuing a series of structural fiscal reforms to safeguard longer-term fiscal sustainability. Reform on the government employee pension, has been passed at the special committee in the National Assembly with a view of increasing the contribution by employees while reducing the fiscal cost of benefits. The management of the National Pension system is also being reviewed in order to bolster independence and the efficiency of asset management. In addition, the function and organizational structures of all state-owned enterprises are also being re-examined in order to improve the efficacy of the SOEs by eliminating the overlaps or redundancy of functions.

As we all know, pursuing structural reform can be a very challenging task as well as a difficult process of balancing the interests of different groups. However, Korea is fully committed to reform efforts on every front. We continue to seek the Fund's engagement and support.