



REPUBLIC OF KOREA

February 2018

2017 ARTICLE IV CONSULTATION—PRESS RELEASE; STAFF REPORT; 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 2017 Article IV consultation with Republic of Korea, the following documents have been released and are included in this package:

- A **Press Release** summarizing the views of the Executive Board as expressed during its January 17, 2018 consideration of the staff report that concluded the Article IV consultation with the Republic of Korea.
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on January 17, 2018, following discussions that ended on November 25, 2017, 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 December 27, 2017.
- An **Informational Annex** prepared by the IMF staff.
- A **Statement by the Executive Director** for the Republic of Korea.

The documents listed below have been or will be separately released.

Selected Issues

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IMF Executive Board Concludes 2017 Article IV Consultation with the Republic of Korea

On January 17, 2018, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation¹ with the Republic of Korea.

Korea's near-term outlook is improving. After slowing in the second half of 2016, growth has picked up in 2017, while recent geopolitical tensions have had a limited impact. The rebound was led by a strong expansion in investment, especially in the IT and construction sectors. Export growth strengthened thanks to improving external conditions and high global demand for semiconductors. Private consumption growth picked up, but remains below economic growth. Recovery has been supported by an accommodative monetary policy, with lending rates and long-term yields close to record lows. Instead, the fiscal stance has been tight, with the structural budget surplus expected at 1.4 percent of GDP (consolidating central government and social security fund accounts). The unemployment rate is hovering around 3.8 percent (seasonally adjusted) but remains significantly higher for youth. Inflation has rebounded to around the Bank of Korea's 2-percent target, although it displayed some volatility. The current account surplus narrowed in 2017, but is expected to remain large above 5 percent in the medium term.

The cyclical recovery is expected to continue. GDP growth is projected at 3.2 percent in 2017, as the momentum in the first three quarters continues. In 2018, growth is forecast at around 3.0 percent, with private consumption growth benefitting from the large minimum wage increase and from policies supporting employment and social spending. Exports will benefit from the strong global trade. The current account surplus remains substantial and is projected to be 5.6 percent of GDP in 2017, and to edge lower to around 5.4 percent of GDP in 2018. Household debt is the main financial stability risk; nevertheless, macroprudential policies are effectively addressing the financial stability challenges so far.

Potential growth has slowed down and its prospects are hampered by unfavorable demographics and slowing productivity growth, driven by structural weaknesses. Income equality and polarization are worsening, partly reflecting inadequate social protection as well as labor and product market duality. The government's program aims to address impediments to growth and income inequality.

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 Assessment²

Executive Directors welcomed Korea's ongoing economic recovery despite geopolitical tensions. Directors also noted that risks to near-term growth are balanced. They considered that long-term growth faces challenges from aging population, slowing productivity growth, and rising income inequality, partly reflecting weak social protection, and labor and product market duality. Directors agreed that well-calibrated macroeconomic policies and bold structural reforms aimed at tackling the economy's structural problems are key to laying the foundations for sustained and inclusive long-term growth.

Directors commended the authorities for following a prudent fiscal policy, which has helped build buffers. They agreed that fiscal policy should be expansionary to enhance social safety net, support short and long-term growth, and reduce imbalances. Many Directors highlighted that a more expansionary stance is warranted given the ample fiscal space. A number of Directors, however, shared the authorities' cautious approach to increasing public expenditures. For the longer term, Directors agreed fiscal challenges from the aging population will necessitate additional revenue mobilization.

Directors agreed that monetary policy should remain accommodative as inflationary pressures are likely to remain subdued. They recommended that monetary policy credibility could be enhanced by strengthening communication of policy intentions. This involves clarifying the BOK's policy reaction function that describes the conditions under which it will adjust policy rates in the future. Directors emphasized that the exchange rate should continue to be allowed to move flexibly, with intervention limited to addressing disorderly market conditions. A few Directors encouraged publication of the intervention data.

Directors welcomed that the financial system is sound and that macroprudential policies are effectively addressing financial stability challenges, including from high household debt. They encouraged the authorities to remain vigilant to emerging risks, especially from non-bank financial institutions.

Directors emphasized that structural reforms to mitigate duality in the labor market and support job creation are necessary to increase productivity and foster inclusive growth. They agreed that efforts should be geared towards more flexibility for regular workers; a strong and inclusive safety net for the unemployed; and active labor market policies. While there is scope to expand public sector jobs, Directors underscored that this should be approached cautiously. Moreover, the minimum wage should be increased with care going forward, and any compensatory subsidy to small- and medium-size enterprises should be temporary. To support youth employment, Directors noted that existing measures, such as vocational schools, the work-study dual system, and internships, could be strengthened. Policies should also focus on strengthening female labor force participation and leadership.

Directors considered that the regulatory burden for firms should be eased, especially in the service sector. They highlighted that government policy towards SMEs should prioritize fostering growth and innovation, rather than shielding weaker firms. Additionally, Directors noted that there is scope to better design and coordinate R&D support.

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, 2014–18

	2014	2015	2016	Projections	
				2017	2018
Real GDP (percent change)	3.3	2.8	2.8	3.2	3.0
Total domestic demand	3.1	4.0	3.7	5.0	3.0
Final domestic demand	2.5	3.2	3.6	4.8	2.9
Consumption	2.0	2.4	2.9	2.8	3.3
Gross fixed investment	3.4	5.1	5.2	9.0	2.3
Stock building 1/	0.0	0.5	-1.5	0.2	0.0
Net foreign balance 1/	0.4	-1.1	-1.0	-1.9	0.3
Nominal GDP (in trillions of won)	1,486	1,564	1,637	1,732	1,805
Saving and investment (in percent of GDP)					
Gross national saving	34.5	35.6	35.7	36.6	36.0
Gross domestic investment	29.3	28.9	29.2	31.0	30.7
Current account balance	6.0	7.7	7.0	5.6	5.4
Prices (percent change)					
CPI inflation (end of period)	0.8	1.1	1.3	2.1	1.9
CPI inflation (average)	1.3	0.7	1.0	2.0	1.9
Core inflation (average)	1.7	2.4	1.9	...	...
GDP deflator	0.6	2.4	1.8	2.4	1.1
Real effective exchange rate	6.6	1.3	-1.9	...	...
Trade (percent change)					
Export volume	4.3	2.5	1.0	5.4	3.7
Import volume	4.6	3.2	1.2	8.2	3.6
Terms of trade	1.7	12.0	1.0	0.4	-0.9
Consolidated central government (in percent of GDP)					
Revenue	21.2	21.5	22.5	22.4	22.7
Expenditure	20.8	20.9	20.7	21.2	21.2
Net lending (+) / borrowing (-)	0.4	0.6	1.7	1.2	1.4
Overall balance (authorities)	0.6	0.0	1.0	0.8	1.0
Excluding Social Security Funds	-2.0	-2.4	-1.4	-1.7	-1.6
Structural balance	0.6	0.8	2.0	1.4	1.5
General government debt	35.9	37.8	38.3	37.6	37.3
Central government debt	33.9	35.6	36.1	35.4	35.1
Money and credit (end of period)					
Credit growth	7.4	7.6	7.3	6.2	6.1
Overnight call rate	2.0	1.5	1.3	...	...
Three-year AA- corporate bond yield	2.4	2.1	2.1	...	...
M3 growth	8.7	9.0	7.9	7.9	7.9
Balance of payments (in billions of U.S. dollars)					
Exports, f.o.b.	613.0	542.9	511.9	569.1	603.3
Imports, f.o.b.	524.1	420.6	393.1	446.6	476.9
Oil imports	94.9	55.1	44.3	57.3	65.9
Current account balance	84.4	105.9	99.2	85.6	88.7
Gross international reserves (end of period) 2/	358.8	363.2	366.3	366.9	368.5
In percent of short-term debt (residual maturity)	208.8	231.6	236.6	240.5	240.1
External debt (in billions of U.S. dollars)					
Total external debt (end of period)	424.3	396.1	380.9	364.9	354.0
Of which: Short-term (end of period)	116.4	104.3	105.2	106.0	106.9
Total external debt (in percent of GDP)	30.1	28.6	27.0	23.8	21.4
Debt service ratio 3/	7.9	9.0	9.3	8.4	7.8

Sources: Korean authorities; 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.



REPUBLIC OF KOREA

STAFF REPORT FOR THE 2017 ARTICLE IV CONSULTATION

December 27, 2017

KEY ISSUES

Context. A cyclical recovery is underway, with limited impact from the recent geopolitical tensions. Inflation has rebounded to around the Bank of Korea's 2-percent target, although it displayed some volatility. The current account surplus narrowed in 2017, but is expected to remain large above 5 percent in the medium term. Potential growth has slowed down and its prospects are hampered by unfavorable demographics and slowing productivity growth, driven by structural weaknesses. Income equality and polarization are worsening, partly reflecting inadequate social protection as well as labor and product market duality. The government's program aims to address impediments to growth and income inequality.

Outlook. GDP growth is expected to rebound to 3.2 percent in 2017 from 2.8 percent last year, and remain at around 3 percent in 2018. In 2017 growth is driven by business and construction investment. Net exports will contribute negatively to growth, despite a surge in exports. Next year growth will be supported by a shift in the contribution of net exports to slightly positive as imports of capital goods moderate, and exports benefit from stronger global trade. Private consumption growth will accelerate on the back of the large minimum wage increase and policies supporting employment and social spending. Investment growth will remain positive albeit at a slower pace. Headline inflation is projected to average 2.0 percent in 2017 and 1.9 percent in 2018. Risks to growth are balanced.

Policy Recommendations:

Staff recommends an integrated package of macroeconomic, financial and structural policies to support the recovery, raise potential growth, reduce excess external imbalances, and preserve financial stability.

- Short-term fiscal policy should become significantly more expansionary to support the recovery and rebalance the policy mix. Korea has substantial fiscal space to aim for a zero-structural balance in the short and medium run without a risk to debt sustainability. With inflation projected to hover around the inflation target, monetary policy should remain accommodative.
- Targeted increases in social spending, sustained over the medium and longer term—should promote economic rebalancing toward consumption-based growth and lessen inequality. Fiscal spending on childcare and Active Labor Market Policies should also be used to boost labor supply. Enhancements to the monetary policy framework should be considered to continue to increase policy effectiveness.

- While risks to financial stability appear well contained, high and rising household debt remains a source of vulnerability. The steady tightening of macroprudential policies should contain this risk and allow monetary policy to focus on inflation.
- As an integral part of the package of policies geared to boost potential output and reduce labor market duality, Korea should adopt “flexicurity” in the labor market. This involves three pillars: (i) more flexibility for regular workers; (ii) a strong and inclusive safety net for the unemployed; and (iii) Active Labor Market Policies. Policies should also focus on strengthening female labor force participation and youth employment.
- While there is scope to increase public sector jobs, the government should be careful in expanding public employment to create jobs. The minimum wage should be raised cautiously going forward and any compensatory subsidy to SMEs must be temporary.
- It is also critical to boost productivity. The regulatory burden for firms should be eased especially in the service sector. Government policy towards SMEs needs to prioritize fostering growth and innovation, rather than shielding weaker firms. Finally, there is scope to better design and coordinate R&D support.

Approved By
Markus Rodlauer
Martin Kaufman

Discussions were held in Seoul during November 1-15, 2017. The staff team included Tarhan Feyzioglu (Mission Chief), R. Sean Craig, Dongyeol Lee, Johanna Schauer, Edda Zoli (all APD), and Hou Wang (RES). H. Choi and J. Shin (OED) participated in the discussions. L. Tolentino and C. Arbelaez assisted in preparing this report.

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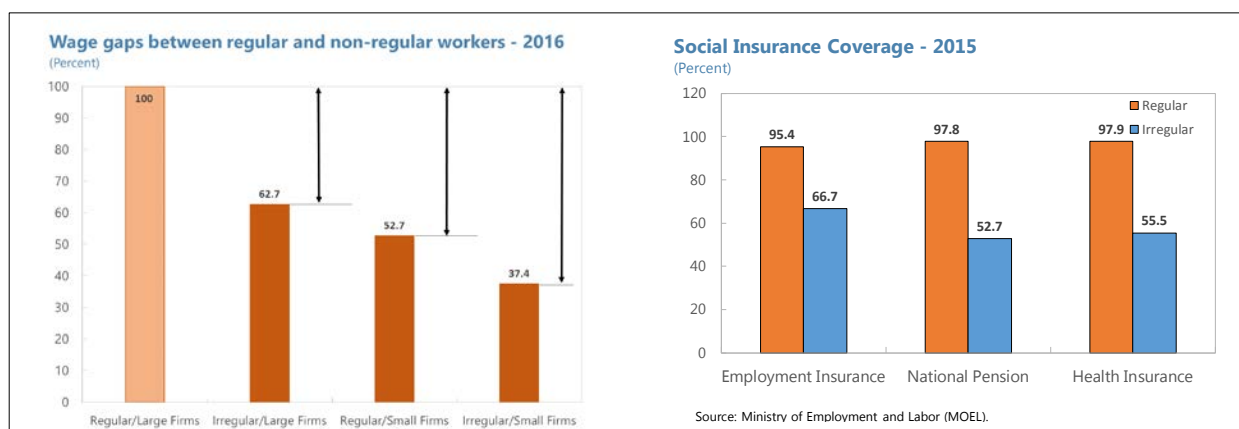
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CONTEXT: CYCLICAL RECOVERY AMID LONG-TERM CHALLENGES

1. **Korea's near-term outlook is improving.** After slowing down in the second part of 2016, growth picked up in 2017, supported especially by buoyant investment, while recent geopolitical tensions have had a limited impact. The output gap, nonetheless, remains negative. Headline inflation has risen to around the 2 percent target, with some volatility. Fiscal policy is tight while monetary policy remains accommodative even as the BOK initiated the monetary tightening cycle with a 25-basis point policy rate hike in November. High and rising household debt represents a short-term vulnerability.
2. **External imbalances persist.** With real exports exceeding 50 percent of real GDP—one of the highest shares among advanced economies—and increasing precautionary savings weighing on consumption, the current account balance was 7 percent of GDP in 2016, and is projected to remain above 5 percent in the medium term.
3. **Structural headwinds hinder a pick-up in long-term growth.** Potential growth has fallen from 7 percent in the early 1990s to below 3 percent, in line with the authorities' views, on account of adverse demographics and slowing productivity, and is projected to decline steadily until 2058.¹ Korea's share of population that is working age is expected to peak at 70 percent in 2016 and drop to 50 percent in 2050, depressing potential employment and growth. Total factor productivity has slowed down and remains about 60 percent of that in the US.
4. **Labor and product markets are highly dualistic.** In the labor market, there is significant divide between regular and non-regular workers. The latter represent a share of over 20 percent in Korea, compared to an average 11 percent in OECD economies. Non-regular workers often get stuck in succeeding spells of short-term employment, earn on average 66.3 percent of regular workers' wages, and are less likely to receive social benefits or on-the-job training, which has contributed to inequality and lower productivity growth.² Labor market segmentation is also aggravated by the divide between large and small firms, with the latter—less productive—paying lower wages and offering fewer regular job positions. In the product market, there are also large productivity gaps between manufacturing and services. Staff analysis indicates that labor productivity in manufacturing was 65 percent relative to the frontier in 2012, compared to 31 percent in market services.

¹ See the Selected Issues Paper "A New Strategy for Korea's Fiscal Policy in a Low Growth Environment."

² See the Selected Issues Paper "Labor Market Duality in Korea."



5. Polarization and inequality are worsening. Old-age poverty is significantly higher than in the rest of the OECD, and the rate of unemployed and inactive youth is high.³ While Korea's Gini coefficient is below the OECD average, it inched up in 2016, to 0.304 compared to 0.295 in 2015, the highest figure since 2012. Furthermore, income polarization has been worsening, with the ratio of disposable income of the highest quintile to the lowest quintile increasing from 5.1 in 2015 to 5.5 in 2016. Moreover, social mobility through education and entrepreneurship has weakened substantially. An inadequate safety net and duality in labor markets, and between SMEs and large companies, are key contributors to inequality.

6. The new government has started implementing a comprehensive economic program to address low growth and worsening income inequality. The program—characterized by the authorities as “a paradigm shift”—focuses on income-led growth, job creation, fair competition, and innovation. The government has already taken important initiatives (Box 1). President Moon won this year elections decisively and continues to enjoy high approval ratings, but his party lacks the three-fifths majority required to pass legislation unilaterally.

RECENT ECONOMIC DEVELOPMENTS, OUTLOOK AND RISKS

A. Recent Developments

7. The economy is showing momentum. Growth has picked up this year, led by a strong expansion in investment, especially in the IT sector. Construction growth remained robust as mortgage loans continued to expand at a solid pace. Export growth strengthened thanks to improving external conditions and high global demand for semiconductors. The contribution of net exports to growth was negative, however, owing to an import surge driven by investment. Private consumption growth has also picked up, but remains below economic growth. The recovery has been supported by an accommodative monetary policy, with lending rates and long-term yields close to record lows. The unemployment rate is hovering around 3.8 percent (seasonally adjusted), but remains significantly higher for youth, at 10.0 percent (seasonally adjusted) in September.

³ OECD Economic Surveys: Korea 2016.

Box 1. Policy Initiatives of the New Government

The government is implementing or about to implement important policy measures to support income and social protection, that have already been approved by parliament or the counterparts involved. They include

- (i) a 2017 Supplementary budget of KRW of 11 trillion (0.7 percent of GDP), which includes subsidies for job-seeking youth, higher child and unemployment benefits, transfers to the elderly and tax incentives to firms for hiring;
- (ii) a 16.4 percent increase in the minimum wage beginning in 2018;
- (iii) a permanent expansion in welfare spending in the 2018 budget;
- (iv) a tax revision bill which envisages measures to make the tax system more progressive, including: (a) a hike in the income tax rate for the top two brackets by 2 percentage points; (b) an increase in the corporate tax rate for companies whose taxable income exceeds KRW 300 billion (\$276 million) from 22 percent to 25 percent.

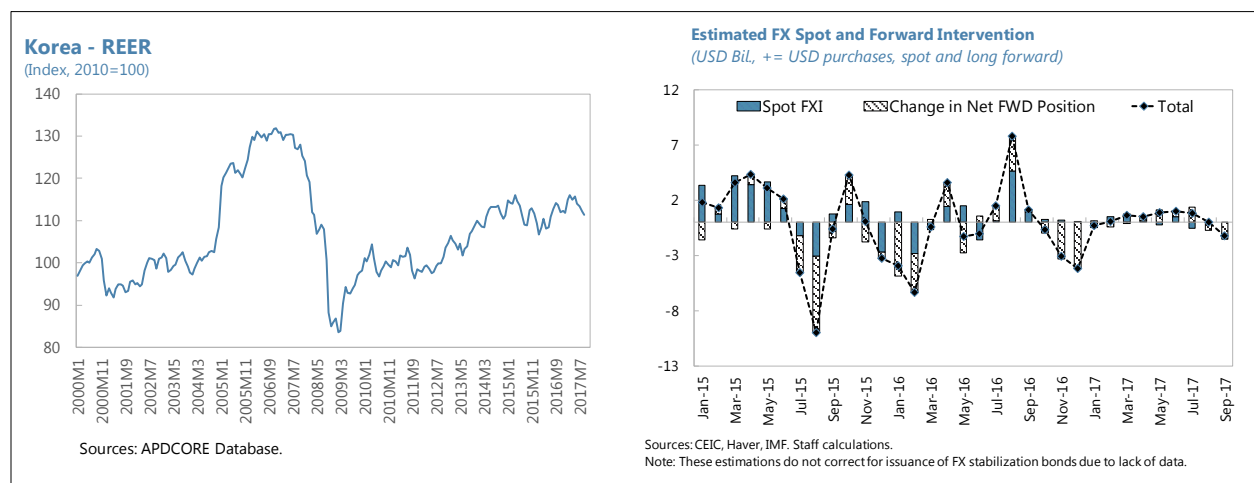
In addition, the government is working on other initiatives that will be finalized in the coming months:

- A five-year employment road map, which envisages an expansion in public sector jobs, new restrictions on the use of non-regular employment contracts, enhancements in the wage system, and a 52-hour limit on weekly working hours.
- Measures to promote fair competition between conglomerates and smaller firms.
- A plan to support innovation and foster productivity growth. This involves upgrading technology and providing an environment that promotes creative research. To foster private-sector-driven growth, the government intends to implement far-reaching regulatory reforms.

8. Headline inflation temporarily rose above the Bank of Korea's two-percent target during 2017. This largely reflects a surge in commodity prices. In November, headline inflation slowed to 1.3 percent year-on-year, as agricultural, utilities and tourism prices fell, which more than offset higher gasoline prices. Core inflation, which excludes food and energy prices, remained below two percent, and stood at 1.4 percent in November, reflecting the negative output gap.

9. Capital flows proved resilient to monetary tightening in the US and increased geopolitical tensions. Compared to the first three quarters of last year, net non-FDI capital inflows increased by \$10 billion. Non-resident portfolio inflows surged US\$16.6 billion as foreigners sharply expanded purchases of debt securities. Equity inflows have also been strong, with the share of foreign ownership in the domestic stock market rising to more than 34 percent in September, and contributing to an all-time high in stock prices.

10. The real effective exchange rate (REER) has been on a gradually appreciating trend since 2013. The average REER from January to November 2017 was 2.7 percent above the 2016 average. The nominal effective exchange rate appreciated by 2.4 percent over this period. This was driven largely by an appreciation of the won against the dollar by 11.7 percent in 2017. Foreign exchange reserves increased by 3.6 percent year-to-date, mostly owing to valuation effects, reaching US\$384 billion (25 percent of GDP) in October. Foreign exchange intervention appears limited based on staff estimates with available data.



11. The current account surplus narrowed but remained elevated. In the first three quarters of 2017, it was 5.7 percent of GDP (seasonally adjusted), compared to 7 percent of GDP in 2016. The decline was driven by (i) a surge in imports of capital goods, which more than compensated for a rise in exports; (ii) a narrower service balance, reflecting a decline in shipping services and the lower tourism arrivals from China, (iii) a smaller income balance, and (iv) rising commodity prices. The surplus for the whole year is projected at 5.6 percent of GDP. The narrowing of the current account surplus reflects a rise in the investment to-GDP-ratio by 2 percentage points, with the saving rate increasing only marginally.

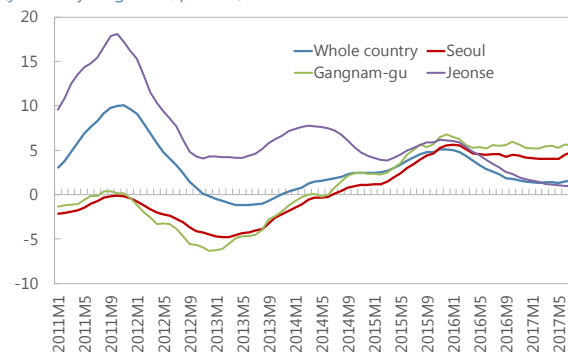
12. A preliminary assessment of Korea's 2017 current account surplus finds it to be "stronger than warranted by medium-term fundamentals and desirable policies." A significant part of Korea's current account surplus reflects fundamentals and cyclical factors (such as demographic factors and the oil price), which the IMF's assessment separates out in order to arrive at an estimate of the "current account gap." Compared with the assessment of the 2016 external position,⁴ preliminary model estimates for 2017 point to a narrower current account gap. About two-thirds of the gap is attributed to a "policy gap," primarily a tighter-than-warranted fiscal stance and social spending being below the desirable level, with the remainder of the gap reflecting other factors (residual in the model estimates). The rapid integration of Korea into global value chains could be another explanatory variable.⁵ Correspondingly, the REER is assessed to be weaker than the level consistent with fundamentals and desirable policies (Annex I).

⁴ See the 2017 External Sector Report, IMF.

⁵ See the Selected Issues Paper "Korea's Integration into Global Value Chains and External Balance."

13. The financial sector is sound, with high and rising household debt the main domestic financial stability risk. Household debt exceeds 90 percent of GDP, increasing vulnerability to both a housing price correction and a sharp rise in interest rates.⁶ A tightening of macroprudential measures has helped slow household credit growth to 7.8 percent year-on-year in October, from the 12-percent average annual growth rate in 2016. The increase in house prices nationally has slowed to about 1 percent year-over-year; but in Seoul apartment prices are still rising at a nearly 5-percent annual rate. Macroprudential policy measures, including some targeting speculative buying of apartments in Seoul, should help stabilize prices. According to staff analysis, the overall housing prices level is in line with fundamentals. However, there remains a risk of a price correction in the region around Seoul, which experienced larger price increase and where the surge in supply from the construction boom could weigh on prices.

Housing Price Inflation: Apartments and Jeonse Rent Index
(year-on-year growth, percent)



Sources: CEIC; IMF staff calculations.

14. The macro policy mix relies excessively on monetary policy, with no contribution from fiscal policy. The fiscal stance has been tight, while monetary policy is accommodative, hindering the necessary external adjustment. Even though the policy interest rate was raised 25 basis points in November 2017 to 1.5 percent, policy remains accommodative and will continue to be so even after the further rate hikes expected by financial markets in 2018. In contrast, fiscal impulse was negative in 2016, with the structural budget surplus increasing by 1.2 percent of GDP (consolidating central government and social security fund accounts). While the fiscal impulse could be positive in 2017, as the new government increases spending, the structural fiscal surplus will likely remain sizable, at 1.4 percent of GDP this year, providing limited support to the recovery.

15. The corporate sector as a whole is profitable and moderately leveraged, but with significant differences across groups of firms. The aggregate debt-to-equity ratio was 79.6 percent at the end of 2016—just 1 percentage point up from the previous year. Profitability and the interest coverage ratio improved. However, there are large differences in financial performance across groups of firms. Liquidity and profitability are weaker for SMEs than for large firms. Moreover, profitability, solvency, liquidity and leverage positions are poorer among the conglomerates excluding the largest four compared to the top four conglomerates and other large companies. This could ultimately have an adverse impact on investment and growth.⁷

⁶ See the Selected Issues Paper “Macroprudential Policy and High Household Debt.”

⁷ See the Selected Issues Paper “Recent Trends in Financial Performance and Investment of Korea’s Largest Companies.”

16. Corporate restructuring is progressing. Debt-to-equity ratios in the shipbuilding and shipping industries, which are undergoing restructuring, fell dramatically in 2016 (by 155 and 147 percentage points, respectively, compared to 2015), owing to debt restructuring and capital injections. Further recapitalization occurred in 2017. In 2016-17 the state-owned policy banks EXIM and KDB, which are the main creditors of the shipbuilding and shipping firms under restructuring have increased their capital by KRW 2.2 trillion and KRW 3 trillion, respectively, including through capital injections from the government and issuance of subordinated debt. The Policy Bank Recapitalization Fund that was set up last year, and partly financed by a BOK loan, has not been tapped yet.

B. Outlook and Risks

17. The cyclical recovery is expected to continue. GDP growth is projected at 3.2 percent in 2017, as the momentum in the first three quarters continues. In 2018, growth is forecast at around 3 percent, with private consumption growth benefitting from the large minimum wage increase, and from policies supporting employment and social spending. Investment growth should remain positive albeit at a lower level, as the contribution of construction and facilities investment is expected to decline owing to a strong base effect and tighter macroprudential measures. Consistent with these developments, credit growth will continue to slow. Growth will also be supported by a shift in the contribution of net exports to slightly positive as imports of capital goods moderate, and exports benefit from stronger global trade. The output gap is projected to remain negative this year and the next, although the estimate of around 0.6 percent of GDP in 2017 is subject to a high degree of uncertainty stemming from the slowdown in potential growth.

18. Headline inflation is projected to remain around 2 percent in 2017 and 2018. The diminishing effect of past food price increases may lower the rate slightly in 2018. Core inflation should edge higher, owing to moderate upward pressures from income and employment policies, but is likely to remain below 2 percent in 2018.

19. The current account surplus is projected to edge lower to around 5.4 percent of GDP in 2018. Next year exports should be boosted by stronger global trade, and normalization of the relations with China. However, the projected oil price increase is expected to raise the value of imports and more than offset the gains in exports

20. Risks to near-term growth are balanced (Annex II). The key external risks stem from geopolitical tensions and foreign monetary policy tightening. Heightened risks related to North Korea could adversely impact financial markets and investment, although markets have remained resilient so far. Significant escalation of tensions, even without a military confrontation, could affect domestic demand and market confidence. External downside risks also arise tighter global financial conditions, which could trigger capital flow volatility. Renegotiation of the Korea-U.S. free trade agreement (KORUS) is expected to take time and is thus unlikely to have a sizeable impact on the current account and growth in the short-term. Domestic downside risks mostly relate to high household debt and a house price correction. The main upside risks are from stronger than

projected exports, especially in the outer years, if the recent U.S. tax reforms have a positive impact on global demand. Upside risks stem also from higher than expected consumption reflecting the government's new income support measures.

Authorities Views

21. The authorities shared the staff view that the near-term outlook is improving. The BOK expected the output gap to close sooner than anticipated by staff, leading to moderate inflationary pressures, but recognized the large uncertainty surrounding this assessment. The authorities agreed with the mission's assessment of risks. They expected the resilience shown by financial markets to recent developments in North Korea to continue unless risks escalated sharply. Risks from high household debt were expected to be contained by tighter macroprudential policy. The BOK's inflation projection was in line with staff's, but the authorities saw significant upside risks.

22. The authorities expressed strong reservations about the 2016 external sector assessment. They pointed out that structural and cyclical factors, in particular demographics and oil prices, had a larger impact than the EBA model suggested. In addition, they highlighted that the EBA should provide a rigorous, even-handed, and candid assessment. To this end, they indicated that the EBA needs to consider additional country-specific factors such as unification costs and address measurement issues. The authorities cautioned that the relationship between the current account and the REER had been weakening because of the increasing integration into global value chains and other structural non-price factors. They saw the real effective exchange rate as close to the long-term average and broadly consistent with long-run equilibrium.

23. The authorities expected the current account surplus to narrow next year. This decline will be driven by higher oil prices, continued weakness in the shipping and shipbuilding sectors and increasing travel of Koreans abroad.

SUPPORTING THE RECOVERY AND MITIGATING RISKS

24. The baseline policy mix in 2018 is a tight fiscal and an accommodative monetary stance. The structural fiscal balance is projected to increase to 1.5 percent of GDP, based on the 2018 budget passed by the National Assembly. While monetary policy has started the normalization process with a rate hike in end-November, the stance will remain accommodative in 2018.

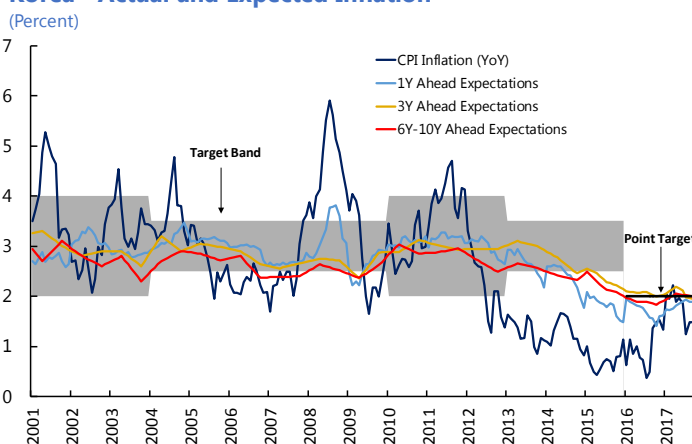
25. Fiscal policy needs to become significantly more expansionary to support inclusive growth and reduce excessive external imbalances. Staff recommends that the government reduces the structural balance toward zero by at least 0.5 percentage point each year during the coming years. This should be achieved largely through higher expenditures on social policies and structural reforms, including targeted transfers to the most vulnerable, and increased spending on childcare and Active Labor Market Policies (ALMP). This would increase growth by nearly 0.2 percentage point each year. The expansion should preferably be even more frontloaded, provided it does not significantly hinder the efficiency of public expenditures. This policy would boost a consumption-led recovery, promote economic rebalancing and, critically, help lift potential

output (see paragraphs 41–42 and Box 3). Should the output gap close earlier than anticipated and inflationary pressures emerge, monetary policy should be tightened faster, while allowing fiscal policy to continue supporting long-term growth and rebalancing. This will also contribute to a recalibration of the policy mix to avoid over-reliance on monetary policy. Korea has substantial fiscal space to aim for a zero-structural balance in the short and medium run without a risk to debt sustainability. This would prevent Korea from running a procyclical fiscal policy. It would also allow to continue maintaining a fairly stable debt-to-GDP ratio, with the pension fund accumulating some additional assets.

26. The BOK should maintain its accommodative monetary stance.

The policy rate was increased by 25 basis points on November 30. The authorities indicated that the BOK will take a measured approach to adjusting the accommodative stance, while cautioning that maintaining the current interest rate of 1.25 percent could have intensified risks from accumulated financial imbalances. This represents the first step toward normalization of monetary conditions, with at least one more rate hike expected by financial markets in 2018. Policy will remain accommodative next year and, given that inflationary pressures are likely to remain subdued, further monetary tightening can wait for clear indications that projected inflation would move above the BOK's target. Early and decisive action to ease the fiscal stance along the line outlined above would facilitate a more rapid rebalancing of the policy mix.

Korea - Actual and Expected Inflation



27. The credibility of the revised inflation target should continue to strengthen. Inflation expectations became less well anchored as actual inflation moved below the target range for headline inflation of 2½-3½ percent in 2013-16 (Figure). As part of its regular, triennial review of the monetary policy framework, the BOK shifted to a point target of 2 percent in 2016. This is the same level as in most advanced economies, and reflects the BOK's reassessment of the optimal inflation target, which has declined owing to structural changes in the inflation process stemming from factors such as rapid population aging. Until this reduction, the midpoint of the target range had not been changed. With inflation now close to the revised target, the credibility of the anchor should strengthen over time provided no more changes to the target are made. There may be scope to accelerate this process through communications clarifying how policy will achieve this target.

28. While BOK communication is already effective, more specific characterization of policy rate intentions can enhance monetary policy credibility. Transparency on monetary policy decision making is high with, for example, MPC members' views on economic conditions and how policy should respond published and summarized in a statement by the Governor. Communication

could be further enhanced through more forward-looking discussion of how the inflation target is to be achieved. This involves characterizing the central bank “policy reaction function” by explaining how the BOK proposes to adjust policy rates in the future as circumstances change. This approach of inflation-forecast targeting (IFT) is practiced by central banks in a variety of ways reflecting the different situation in each country. BOK communication already includes elements of IFT, which can be built upon. IFT involves more systematic communication of how the policy rate is likely to be adjusted to align forecasted inflation with the inflation target.⁸ This does not mean providing a numerical path for the policy rate; but, rather, a discussion of how the central bank is likely to respond to shocks impacting the inflation forecast. Evidence from the experience of central banks practicing IFT suggests that it strengthens the nominal anchor provided by the inflation target (Box 2).

29. In the context of the strong commitment to exchange rate flexibility, policymakers should clarify their foreign exchange intervention policy. This policy is to respond to “excessive volatility,” resulting from disorderly market conditions (DMCs). The clarification could address how excess volatility is triggered by DMCs, which typically results from some form of market dysfunction or illiquidity (e.g. a buildup of very large speculative positions).

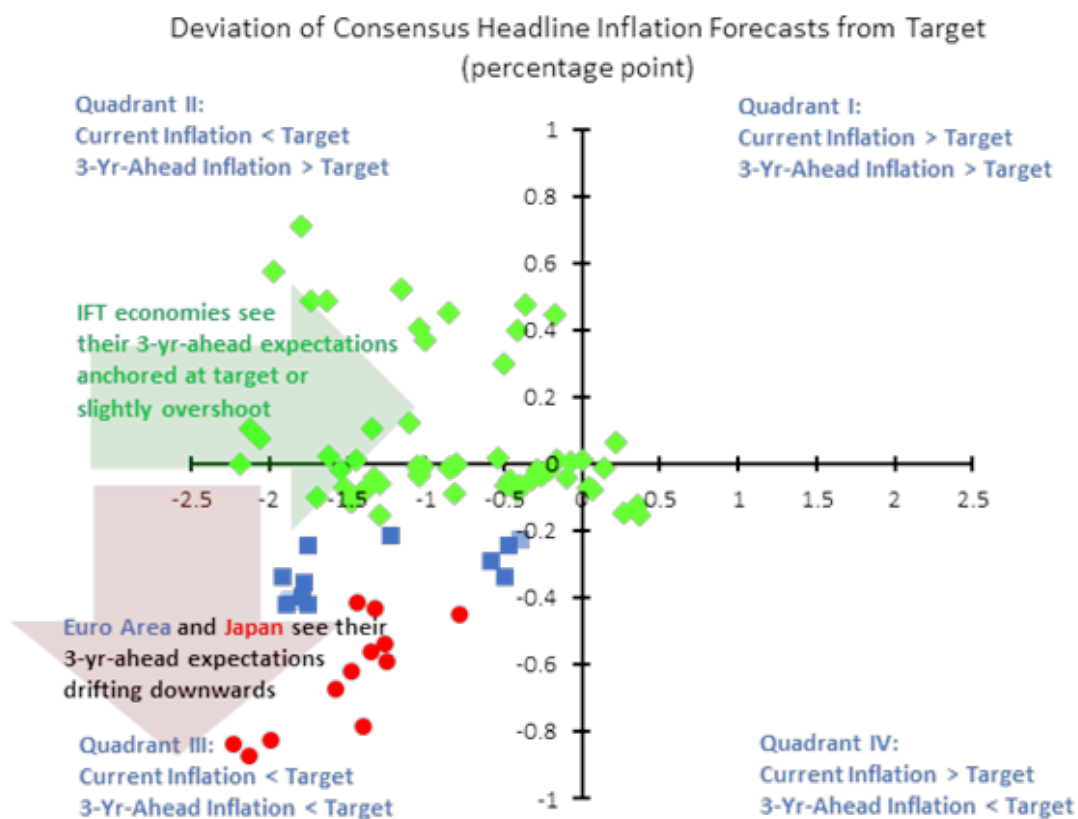
30. Regulatory reforms are strengthening the resilience of the financial system. Banks’ capital ratios are well above regulatory minimums at 14.8 percent in 2016. A Basel III capital surcharge on five domestic systemically important banks and a counter-cyclical capital buffer (CCB) were put in place in 2016 and will be phased-in gradually. The surcharge will rise to one percent in 2019. The CCB has not been activated yet. Its maximum size is of 2½ percent of RWA, however, it is likely to remain low, owing to the slowdown in credit growth. Banking system liquidity is improving, with the loan-to-deposit ratio at 119 percent and expected to edge lower with the moderation in loan growth. Bank asset quality is good, with a non-performing loan ratio of 1.25 percent. Indicators of financial soundness for non-bank financial institutions’ (NBFIs) are also strong, although NPL ratios tend to be higher than for banks, reflecting the generally lower quality of borrowers. Part of the increase in capital ratios in 2016 was due to lower risk weights as low interest rates contributed to an improvement in borrowers’ credit ratings, which can reverse as future interest rates increases push up risk weights. The supervisory authorities are tightening and harmonizing regulation across different types of financial institutions that should help contain further migration of credit risk from banks to NBFIs.

⁸ See the Selected Issues Paper “Enhancing the Monetary Policy Framework in Korea.”

Box 2. Central Bank Experiences with Inflation-Forecast Targeting

Inflation-forecast targeting (IFT) can strengthen the monetary policy framework. The framework varies across countries and encompasses a wide range of communication strategies: from a more qualitative description of the path for policy rates to publication of a numerical path of the interest rate (e.g. Sweden, the Czech Republic, New Zealand, Norway, Israel, and South Africa). It can enhance credibility by communicating the central bank “reaction function” that needs to be well explained so it is not misinterpreted as a commitment to a policy rate path.

Country experiences suggest that IFT has provided a more resilient nominal anchor. Inflation expectations remain much more firmly anchored to the inflation target during significant deviations of inflation from target. In the Figure, the horizontal axis plots the deviation of inflation expectation from target over the years 2015-17, and the vertical axes plots the associated expected inflation rate three years ahead. The five IFT countries are shown as green squares for each quarterly observation, and are mostly centered around the horizontal axis, whereas non-IFT countries, shown as blue squares for the Euro Area, and Japan, shown as red dots, are persistently below the horizontal axis. In almost all cases, the current inflation is below target owing to the fall in energy prices and significant negative output gaps. In the non-IFT group, three-year ahead inflation expectations are negative, implying that the current deviation from target is expected to persist for the next three years. In contrast, this deviation for the IFT group is near zero. This indicates that for non-IFT economies, negative inflation shocks tend to be associated with a shift in medium-term inflation expectations downward, while in IFT economies they remain well anchored to the target.



31. Rising interest rates could pose a risk to asset quality. Low interest rates have contributed to low NPLs by making repayment easier, and asset quality could deteriorate with a large hike in interest rates. Stress tests of interest rate increases are essential to assess asset quality and credit risk. The supervisory authorities conduct a range of bottom-up and top-down stress tests for banks at an annual or quarterly frequency. They show that even a large interest rate increase of 300 basis points has a manageable impact on bank asset quality (Text Table). Top down stress testing, involving common macroeconomic risk scenarios for the financial system, will be extended to NBFIs next year. Bottom-up stress tests are already being applied to individual NBFIs and generally show a high level of resilience.

Results of Interest Rate Stress Tests of Bank Capital Adequacy

Size of Interest Rate Shock	Basel Capital Ratio after Shock	Impact of Shock on Basel Capital Ratio
+100bp	14.9	-0.2
+200bp	14.4	-0.7
+300bp	13.7	-1.4

Source: Financial Stability Report "Stress Tests of Banking Sector under Interest Rate Hike Scenarios," Box 6, June 2017, Bank of Korea.

32. Macroprudential policies are addressing financial stability risks effectively. While the financial system is sound, macroprudential policies remain necessary to contain the risk from high household debt, which could have a large impact on consumption and growth if this risk were to materialize. The tightening of a variety of macroprudential measures (MPMs) appears to be effective in slowing lending to households and house price increases. LTVs and DTIs have been lowered to 40 percent for financial institutions; with larger reductions, to 30 percent, for borrowers with multiple mortgages and in regions where speculative buying is driving up prices. In 2018, a debt-service ratio limit will be implemented for all financial institutions to provide comprehensive coverage of all forms of debt, starting with banks in the middle of 2018 and NBFIs early in 2019. Risks are also being reduced by a rapid shift from floating rate to fixed rate, amortizing mortgage—which now constitute 47 percent of total mortgage loans—increasing households' resilience to interest rate shocks. While credit growth has been higher for NBFIs, indicating some migration of risk to them from banks, this should be contained as both micro- and macro-prudential policies are being tightened in a harmonized fashion across different types financial institutions.

33. Measures targeting banks' external financing risks have been adjusted as the macroprudential policy framework was overhauled. After the global financial crisis (GFC), the authorities introduced measures to prevent excessive build-up of short-term external liabilities and contain banks' currency mismatch risks. These included a leverage cap on banks' foreign exchange derivatives positions, and a levy on foreign exchange funding. These measures are assessed by staff as capital flow management measures as well as macroprudential measures (CFM/MPM). CFM/MPMs should be continuously reviewed and the authorities should consider alternative measures that directly address the systemic financial risks but are not designed to limit capital flows. The authorities have maintained them as preemptive measures for about seven years and adjusted the settings of each on three occasions as risks diminished. In July 2015, the levy was substantially restructured, including through a shift from contractual to residual maturity.

34. In January 2017, substantial reforms of the macroprudential policy framework targeting external risks were implemented. They included a new currency-differentiated liquidity-coverage-ratio (FX-LCR)—an MPM permitted under Basel III—and the abolishing of five existing

measures that overlapped with the FX-LCR (the seven-day, one-month and three-month, maturity mismatch ratios on banks' net foreign currency assets; the reserves requirement on high-quality foreign currency-denominated assets; and a non-mandatory foreign currency cash-equivalent ratio). However, they kept in place as preemptive MPMs the two pre-existing measures mentioned above to complement the new FX-LCR in the revised policy framework. These were retained after consideration of the alternative of a currency differentiated Net Stable Funding Ratio (NSFR). A standard Basel III NSFR is being implemented, and making it currency differentiated was considered unnecessary, given that currency mismatch risks are low. The rationale for these measures within this new, more transparent macroprudential policy framework is that they preemptively and more directly target the buildup of specific short-term FX risk on the liabilities side of banks' balance sheets. The FX-LCR complements them by targeting the asset side of banks' balance sheet to ensure that banks have sufficient high quality liquid foreign currency assets to cover potential net outflows for 30-days in a stress scenario.

35. Progress in corporate restructuring needs to be sustained. Rapid implementation of the strategy for financial and operational restructuring of distressed firms is critical to allow the reallocation of resources toward more productive and profitable sectors. The recent recapitalization of the policy banks EXIM and KDB was an important step to safeguard their financial stability and ensure that they remain able to fulfill their policy functions, including playing an important role in corporate restructuring. Social spending should be used to cushion the impact of firm restructuring on affected workers and help reallocate them to other activities. The involvement of the policy banks in the shipbuilding and shipping firms should be reviewed going forward as excess capacity narrows with the restructuring, and the outlook for shipping and shipbuilding industries improves with the rebound in global trade.

Authorities Views

36. The authorities regarded fiscal policy in 2018 as expansionary. They emphasized that next year government spending is expected to increase by 7.1 percent in nominal terms—the largest increase since 2010, and higher than nominal GDP growth. They recognized, though, that revenues were also projected to rise at a similar rate. They noted that no further significant change in fiscal stance would be implemented in 2018, but this could be reconsidered in future budgets. They were also concerned about efficiency of spending if public expenditure were increased very rapidly.

37. The BOK agreed that monetary policy should remain accommodative. They indicated that with the output gap narrowing and inflation close to target the process of monetary policy normalization should begin. They noted that markets were expecting at least one rate increase in 2018, and that the monetary policy would remain accommodative even if policy rates were to rise moderately.

38. The BOK believed that inflation expectations were well anchored. They recognized the merits of “inflation forecast targeting,” and noted that their communication already involved elements of it. They cautioned that implementing such framework in Korea involved risks, including a loss of credibility if projected policy rates differed significantly from the actual outcomes.

39. The authorities were closely monitoring the risks stemming from high household debt, especially in the context of likely interest rate increases. They noted that the supervisory authorities conducted quite extreme stress tests on the impact of interest rate hikes, and also assessed the impact on the most vulnerable borrowers. Overall, these showed that systemic risks were well contained. They added that the recently announced tightening of macroprudential policies would contribute to reduce risks, and that their full effect had not been felt yet. Capital flow volatility from monetary policy normalization by the Fed and ECB was not seen as a reason for great concern.

40. The authorities stressed that they adhere to the principle that the exchange rate is determined by the market. They clarified that intervention policy in foreign exchange market was limited to episodes of disorderly market conditions. This was the meaning of intervention in “periods of excessive volatility”. They noted that exchange rate flexibility would continue.

ADDRESSING LONG-TERM CHALLENGES

41. The current growth momentum presents an opportunity to implement ambitious reforms to reinvigorate long-term growth and foster inclusion. Social protection should be strengthened on a sustained basis, to address inequality, boost consumption-led growth and contribute to rebalancing. Moreover, with potential growth expected to continue being dampened by adverse demographics, and labor productivity still at about 50 percent of that in the U.S., the priority is to boost labor supply and productivity growth. While a number of policies will help increase consumption, for this increase to be sustainable, productivity growth must rise. This requires strengthening female labor force participation and bolstering youth employment, as well as implementing product and labor market reforms to support productivity gains. Labor market duality also needs to be addressed to reduce polarization and support job creation.

Fiscal Policy

42. Fiscal policy should be used to foster social protection and growth-enhancing structural reforms. At 10 percent of GDP, public social spending in Korea is less than half the OECD average. The strategy to lessen income inequality and promote consumption-led growth would involve higher targeted transfers for the most vulnerable. Staff supports the government’s intention to increase the share of spending towards social welfare. This should be accompanied by a reduction in the fiscal surplus to maximize the impact of these measures on growth and promote economic rebalancing. Fiscal policy should also be used to support potential growth by increasing spending on ALMP and childcare, which should bolster labor supply.

43. A policy package involving stronger safety nets, higher fiscal spending on ALPM and childcare, together with structural reforms would yield multiple benefits. Staff analysis indicates that, for example, additional spending for 1.5 percent of GDP on targeted transfers, childcare, and ALMP, accompanied by labor and product market reforms and a shift in the tax structure toward consumption taxes would boost output and consumption permanently by more than 6 percent and 9 percent in 10 years, respectively, and reduce the current account surplus by nearly 2 percent of GDP in 10 years (Box 3).

44. Korea has substantial fiscal space to implement a more active fiscal policy. With central government debt below 40 percent of GDP (below 45 percent of GDP including non-market nonprofit institutions' debt) and an average consolidated central government surplus of 1.2 percent of GDP since 2010, Korea has one of the soundest fiscal positions among advanced economies. The debt-to-GDP ratio is expected to remain below 40 percent until at least 2032, with an average deficit of 0.7 percent of GDP, taking into account the increase in pension- and health-related public spending, and assuming no change in the revenue-to-GDP ratio.

45. In the longer term, fiscal challenges from the aging population will necessitate greater revenue mobilization. Outlays for pensions and healthcare are set to rise by 10-16 percent of GDP by 2060.⁹ With unchanged revenues, the debt-to-GDP ratio would be on an unsustainable trajectory, and is projected to climb above 100 percent of GDP by 2050. This ratio would be increased further in the event of Korean reunification. However, with revenue increases, fiscal sustainability can be preserved. Various combinations of higher revenues and borrowing could be used to stabilize the debt-to-GDP ratio at levels below what is considered "dangerous." Staff analysis indicates this to be around 85 percent of GDP for advanced economies, significantly above the 45 percent of GDP ceiling proposed to the National Assembly. Given Korea's low public debt, aging-related fiscal spending could partly be financed through additional borrowing to avoid an abrupt increase in revenues that could hinder growth. Staff analysis identifies scenarios where, with revenue increases in the longer term, even with additional spending on social safety nets, childcare benefits and ALMP, government debt-to-GDP could be stabilized well below 85 percent. This would provide buffers to deal with the fiscal costs of a possible reunification.

46. Higher revenues could be achieved in the longer term by broadening the tax base. Korea's tax revenue-to-GDP ratio is one of the lowest in the OECD, providing ample room to broaden the tax base with both efficiency and equity gains. The average effective personal income tax rate is low, and for the median wage earner it is close to zero. The base could be broadened by gradually eliminating deductions. Significant efficiency and revenue gains could come from addressing multiple distortions in corporate income taxation, including by reducing the number of corporate income tax rates to one. There is also a need for greater neutrality in the taxation of various sources of capital income. The VAT base could be broadened to cover all new real estate supplies (including the value of land) and fee-based financial services. Depending on the comprehensiveness of these base-broadening measures, it may still be necessary to raise some tax rates, notably the VAT which is relatively low at only 10 percent.

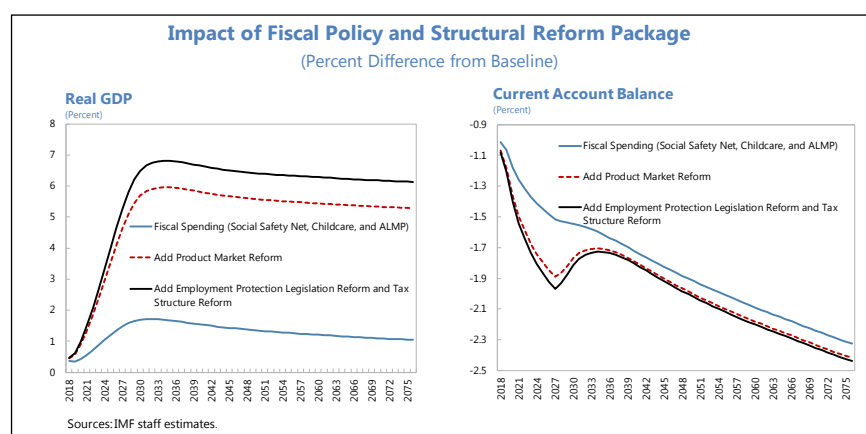
⁹ See the Selected Issues Paper "A New Strategy for Korea's Fiscal Policy in A Low Growth Environment."

Box 3. Addressing Korea's Structural Challenges: The Role of Fiscal Policy

Fiscal policy can play an important role in supporting Korea's long-term growth, mitigating inequality and promoting economic rebalancing through different channels. Higher public spending for childcare and active labor market policies can have significant impact on labor supply, and hence, potential output. Fiscal policies can also support labor and product market reforms that yield productivity gains by mitigating their distributive effects or other unintended short-term costs. Moreover, rebalancing the tax structure away from direct taxes that fall on labor and capital and towards indirect taxes on consumption (VAT) and property taxes would improve allocative efficiency. In addition, higher public welfare spending would provide support to the most vulnerable and reduce income uncertainty and household precautionary savings, which are contributing to external imbalances.

The benefits of fiscal policy measures are illustrated through simulations with the G20MOD module of the Flexible System of Global Models (FSGM). The scenario assumes a permanent increase in targeted transfers by 0.75 percent of GDP to the most vulnerable liquidity-constrained consumers, an expansion in childcare spending by 0.25 percent of GDP, and an increase in ALMP spending by 0.5 percent of GDP. These additional expenses are assumed to be financed through a combination of higher VAT revenues and lower surplus. Moreover, the scenario assumes that in 10 years Korea implements 75 percent of the product market and employment protection reforms that would allow the country's regulation (as measured by the OECD Product Market Regulation Index) to converge to the average of the three OECD economies at the frontier. In addition, the simulation includes a shift toward a more growth-friendly tax structure. Specifically, the share of consumption and property taxes in total tax revenues is assumed to increase by 1.1 percentage points, accompanied by a decline in the share of labor income tax that boosts labor force participation.¹

This comprehensive policy would yield multiple benefits. Output and consumption would increase by about 6 percent and 9 percent, respectively in 10 years, and the current account surplus would decline by nearly 2.0 percent of GDP in 10 years. These results are in line with IMF research showing the benefits of complementary structural and fiscal policies.² They are consistent with the finding that, on average, major past episodes of deregulation of retail trade, professional services, and network sectors in advanced economies led to sizable increases in GDP. The package would imply a 11-percentage points increase in the debt-to-GDP ratio relative to the baseline scenario in 10 years and a 30 percentage points increase beyond 2100. The fiscal surplus would decline permanently by about 1.6 percentage points of GDP relative to the baseline.



¹ For details and methodology see the Selected Issues Paper "A New Strategy for Korea's Fiscal Policy in A Low Growth Environment."

² International Monetary Fund, 2016, World Economic Outlook, Chapter 3.

Labor Market Policy

47. To address duality and boost job creation, Korea should adopt “flexicurity” as the basis for labor market policies. This involves three pillars: (i) more flexibility for regular workers; (ii) a strong and inclusive safety net for the unemployed; and (iii) Active Labor Market Policies. The fundamental principle of “flexicurity” is that it protects workers rather than jobs. This would create a new labor market structure that is essential to adapt to the demands of technological and structural change, as well as increase productivity by enhancing resource allocation and training. It would also raise labor force participation by incentivizing individuals to enter the labor market. Finally, it would enhance equity by reducing duality and protecting the vulnerable.

48. Implementing all three pillars is critical. The authorities are developing policies that cover some of the pillars, notably an expansion in unemployment insurance and an increase in job trainings programs. Only by eventually implementing all three pillars can an adequate balance between incentives, support, and protection be assured. For example, increasing unemployment insurance without raising flexibility would likely increase unemployment. While some measures might entail short-term costs, such as a transitory rise in unemployment, Korea has substantial fiscal space to cushion them and absorb the fiscal costs.

49. Policy measures to adopt flexicurity involve:

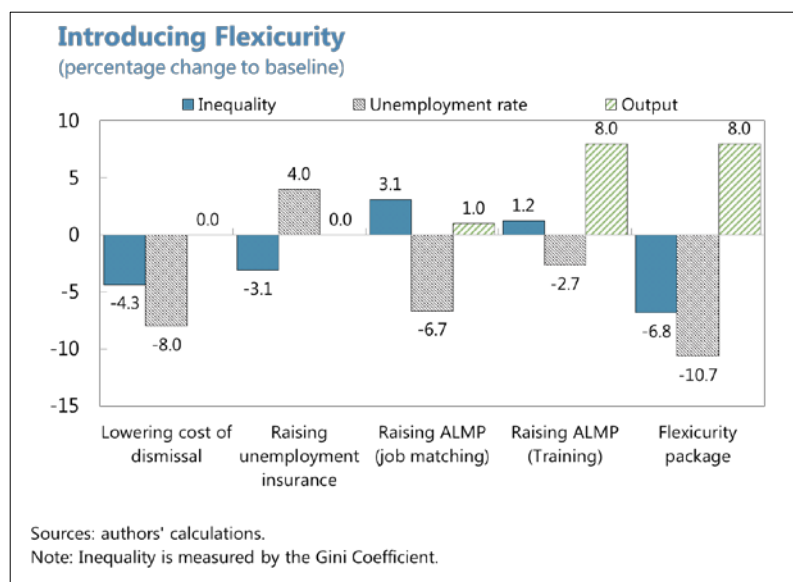
- a. **Flexibility.** Korea has particularly strong restrictions on dismissal of regular workers. To strengthen job creation, the ability to dismiss regular workers for performance and other economic reasons should be eased. The current government plan to convert temporary workers to permanent workers would lower flexibility if it is not accompanied by measures to reduce rigidity of regular contracts.
- b. **Active Labor Market Policies.** ALMPs will need to be expanded and its composition shifted from direct job creation to enhanced job training and matching. To ensure effectiveness, programs should provide personalized support to job seekers, target the most vulnerable such as women and youth, and be well-coordinated with passive labor market policies such as unemployment insurance and social assistance. They will also need to be continuously evaluated and adjusted to ensure effectiveness and adequacy.
- c. **Unemployment insurance.** The government intention to increase coverage and level of unemployment insurance is welcome. It should also be linked to conditionality in areas such as training and job search.

50. Flexicurity needs a strong foundation to be successful. Trust and ownership by all social partners are critical, with all stakeholders part of the social dialogue, including non-unionized workers, SMEs and the self-employed. Furthermore, work arrangements need to become more flexible to meet the varying needs of individuals. This should include more flexible working hours and a move away from the strictly seniority-based wage system. Finally, an education system fostering a culture of life-long learning is essential to adapt to changing labor market conditions. Given the need for significant transformation and careful calibration, implementation of flexicurity will take time and will need to be continuously evaluated.

Box 4. Introducing Flexicurity in Korea—A Modeling Exercise

Korea has ample room to move towards flexicurity along all three pillars. In particular, Korea has very strict regulation for regular workers in case of dismissal for performance or other economic reasons. This makes the process complex and costs of dismissal uncertain, as the probability of reinstatement is high. Korea’s unemployment insurance is also significantly less generous than most other OECD countries. The net replacement rate for the initial phase of unemployment is 56 percent, below the OECD average of 63 percent, and the maximum duration of unemployment benefits is 8 month compared to an OECD average of 18 month. Finally, spending on ALMP was around 4900 USD per unemployed, compared to the OECD average of 7000 USD. In addition, spending was concentrated largely on direct job creation and less on training and matching.

A modeling exercise suggests that Korea could gain significantly from moving towards flexicurity when implementing all three pillars. A search-and-matching model based on Dolado et al. (2017) is calibrated to Korea to model duality and simulate the impact of flexicurity policies.¹ Introducing only one pillar would result in trade-offs between output, inequality and unemployment and among different parts of the population. For example, a reduction in dismissal costs could significantly lower the wage gap between permanent and temporary workers and reduce the “revolving-door effect”, i.e. succeeding spells of short-term employment for temporary workers. However, it would also reduce job security and income of permanent workers, thereby lowering their welfare. ALMP that raise training or improve matching would raise output and lower unemployment. Yet, they also have the potential to exacerbate duality as they make the applicant pool more attractive and incentivize firms to keep rotating temporary workers and pay them lower wages. Introducing all pillars however would lead to improvements along all three dimensions and could raise welfare of everyone if calibrated appropriately.



¹ See the Selected Issues Paper “Labor Market Duality in Korea.”

51. Boosting youth employment is an important priority. Korea's youth employment rate has fallen significantly during the past decade and is now about 10 percentage points below the OECD average.¹⁰ Moreover, the share of youth who are neither in employment nor in education or training is large—18 percent, compared to less than 10 percent in many OECD economies. To support youth employment, existing measures such as Meister schools, the work-study dual system, and internships could be strengthened. This involves increasing ownership by businesses and ensuring the quality of placements, to guarantee accumulation of on-the-job skills and enhance career prospects. A comprehensive policy framework should be put in place to ensure coordination and coherence, and continuously evaluate programs and their impact. In addition, preemptive measures – as practiced in Denmark – could be introduced, including the development of education plans in lower secondary education. This would help children, who are investing a lot of resources at an early age, by developing realistic and individual education and career plans. Raising SMEs' productivity and reducing labor market duality would ensure availability of quality employment and reduce incentives for “queueing” for regular employment.

52. While there is scope to increase public employment, the government should be cautious in expanding the number of public employees to create jobs. The government is planning to create 514,000 new jobs in the government and public corporations, and to convert 300,000 public sector workers into regular employment. There is room to expand jobs in the areas of civil and social services, such as police and firefighters. Currently, public employment is around 8 percent of total, well below the OECD average of 21 percent. However, public employment should not be used as a tool to create jobs, including for the young. Public sector job creation should be linked to developing or expanding services that cannot be provided adequately by the private sector. Also, there is a risk that public employment might crowd out private employment. Moreover, country experience suggests that public employment programs are typically ineffective in boosting youth employment, due to difficulties in transferring the acquired skills to private sector occupations.

53. The planned increase in the minimum wage in 2018 should support growth, but caution is warranted in implementing further large increases. The increase in the minimum wage by 16.4 percent for 2018 will boost incomes of low-wage earners and overall consumption, as their propensity to consume is significantly higher than that of higher-wage earners. However, low-skilled labor may face greater difficulty finding jobs. Looking ahead, further sharp increases that would raise the minimum closer to the average wage, which is currently already around the OECD average, could erode competitiveness.¹¹ Thus, it would be advisable to assess the impact of the current hike before announcing additional ones. To partially compensate small businesses for the increased labor cost, the government plans to pay part of the additional burden, which is estimated at KRW 3 trillion (0.2 percent of GDP) for 2018. Subsidies to compensate SMEs for the increase should be temporary.

¹⁰ See the Selected Issues Paper “Youth (Un)employment in Korea: Recent Trends and Drivers.”

¹¹ See the Selected Issues Paper “Minimum Wage.”

Box 5. Minimum Wage

One of the key pillars of the new administration’s “paradigm shift to sustainable growth” is income-led growth, which includes raising the minimum wage from the current level of KRW 6,470 (\$6.2; PPP terms) to KRW 10,000 per hour in the medium term. In line with this policy direction, the Tri-partite Minimum Wage Commission increased the minimum wage for 2018 to KRW 7,530 (\$7.2; PPP terms) per hour, a 16.4 percent rise compared to this year.

The 16.4 percent hike in the 2018 minimum wage is unprecedented. It is the highest in real terms since the minimum wage system was established, and it significantly exceeds increases in output and inflation.

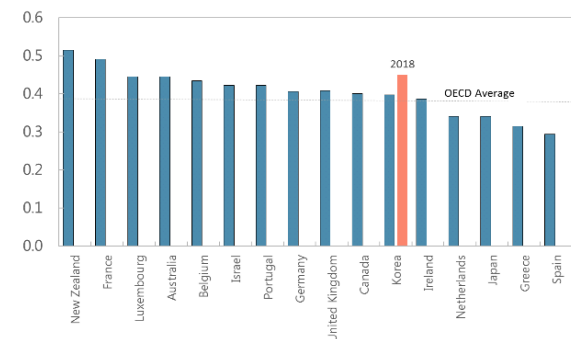
The minimum wage hike should boost consumption. Low-wage earners will see a significant increase in their incomes, and they have substantially higher propensity to consume than high-income earners. Competitiveness is not expected to erode, because only around 7 percent of the workers receive the minimum wage, the ratio of minimum to average wage remains close to the OECD average, and there are no apparent signs that the average wage is out of sync with productivity. However, some low-skilled jobs will likely be lost, especially in sectors where the producers cannot pass on the additional cost to consumers.

There is a risk that further hikes could bring the minimum wage too close to the average wage, which could hurt the economy. France’s experience could be a relevant example. France introduced the minimum wage in 1950, and in 1970, establishing “SMIC” (Salaire Minimum Interprofessionnel de Croissance), which linked the minimum wage to increases in purchasing power of blue-collar workers, in addition to CPI inflation. Discretionary increases by a commission (“coups de pousse”) were also introduced. This led to a substantial increase in the ratio of minimum to average wage from below 35 percent in 1968 to above 50 percent by 1980s. These changes in minimum wage policy lowered wage inequality by increasing wages at the bottom. However, several studies showed that high minimum wages priced low-skilled workers and youth out of the market, thereby contributing to high unemployment. Recognizing the negative impact of high minimum wages, the governments since 1990s have implemented a number of measures to alleviate the burden. They largely aimed to reduce labor costs through lowering the social contributions of employers and providing targeted tax credits to promote consumption of household services. These policies managed to stabilize low-skilled employment. However, the fiscal cost of these measures was high at around 1 percent of GDP in 2007. To ensure that changes to the minimum wage better reflect economic conditions the government introduced a commission of independent experts in 2008 to give official advice each year on “coups de pousse.”



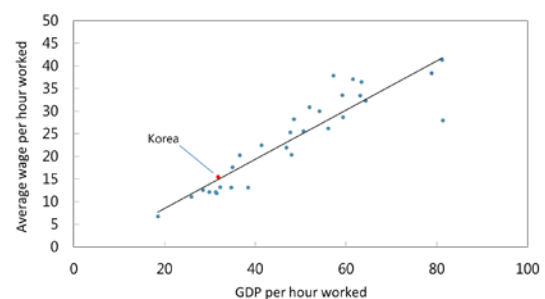
Sources: OECD Database, IMF World Economic Outlook, Staff calculations.

OECD - Minimum relative to average wages of full-time workers - 2016



Sources: OECD Database; Staff calculations.

Productivity and Wages - 2016 (in USD, PPP)



Sources: OECD and staff calculations.

54. Efforts to enhance the participation and leadership of women in the labor market should continue. Korea's female labor force participation is one of the lowest in the OECD—20 percentage points below the best performers. Moreover, the share of women in regular jobs remains at 40 percent; women are paid on average about 37 percent less than men and take up just 2 percent of senior management positions, compared to the OECD average of 20 percent. A mix of policies are needed to foster female labor force participation, including: strengthening quality and affordability of childcare services; promoting shared parental leave; making the tax treatment of second earners more neutral; and introducing benchmarks for employment and leadership of women by corporations. Broader measures that improve work-life balance, including the reduction in working hours, and mitigate labor market duality would also help. The government is planning to introduce several measures in this regard: e.g., enhancing government assistance for women's reemployment; reducing gender wage gaps; raising paternity leave allowance; and expanding government support from childcare services. These efforts would reduce income inequality across genders and raise potential growth by boosting labor supply. Furthermore, adding a second earner to families could lower the demand for job security among regular workers as the risk of income loss is cushioned.

Product Markets

55. The government has announced a plan to support innovation and foster productivity growth. They include (i) building eco-system and infrastructure for innovation; (ii) reducing regulatory cost; (iii) expanding capital provision and safety net for start-ups; and (iv) establishing a national innovation cluster. The authorities also intend to foster SMEs as a new growth engine, supports the establishment of networks to promote economies of scale for SMEs, and introduce cooperative SMEs.

56. The government is also taking measures to promote fair competition between large corporations and smaller firms. This requires changes in the regulation, and its implementation, to reduce the monopsony power of the largest companies vis-a-vis the smaller firms working for them. It also involves enhancing corporate governance. These are important steps to foster competition and strengthen SMEs.

57. Steps should be taken to ease the regulatory burden for firms especially in the service sectors. Korea's product market regulation is one of the fourth-most stringent in the OECD, reflecting in part regulations in network industries (e.g., electricity, gas, and rail).¹² While the regulatory burdens have been eased in some cases, such as railways and telecommunication, further deregulation is needed. Staff estimates that if the regulatory burden (as measured by the OECD Product Market Regulation index) were further lowered to close the gap with the OECD frontier in 10 years, potential output could increase by 3.5 percent in the long run, and yearly potential growth could rise by more than 0.3 percentage points for ten years.¹³

¹²OECD Economic Surveys: Korea 2016.

¹³ For methodology and assumptions, see the Selected Issues Paper "A New Strategy for Korea's Fiscal Policy in A Low Growth Environment."

58. Enhancing the design of incentives to innovations and R&D programs would help boost innovation and productivity growth. This requires (i) shifting size-based subsidies and tax incentives to targeting young firms to enhance incentives for firms to grow; (ii) invigorating research in higher education institutions by expanding international collaboration and competition to foster innovation at the frontier; and (iii) ensuring that R&D incentives do not discriminate against certain service industries and are well tailored to special needs of young firms (e.g. carry-over provisions). In general, R&D support should be well coordinated, based on an objective selection process and continuously evaluated. As for SMEs, government policy should prioritize fostering growth and innovation, rather than shielding weak firms. These measures would also support employment.

Authorities Views

59. The authorities agreed that revenues needed to increase in the longer term to preserve fiscal sustainability. They were planning to broaden the tax base very gradually. Increasing the VAT rate might face opposition. They also had concerns that reducing the number of corporate income tax rates would aggravate the burden for SMEs.

60. The authorities mentioned that Korea should aim for achieving security and flexibility in the labor market. They highlighted that it is necessary to improve “security” for workers before bringing flexibility to the labor market and that safety nets for the unemployed are much lower than in other OECD countries. They agreed with the staff’s view that it will be critical to build more trust between the social partners to implement labor market reforms. On the expansion of public sector employment, they highlighted that it would be different from past public employment programs. The objective is to enhance needed public services and convert into regular contracts public employees that are engaged in work of a permanent and continuous nature. They do not see a risk of crowding out private sector employment because the expansion will be in the public service that cannot be provided adequately by the private sector.

61. The authorities agreed on the need to ease the regulatory burden for firms. They were planning to introduce a “regulatory sandbox” to achieve tangible outcomes as quickly as possible. They pointed out that this was part of a broader paradigm shift, which also required reforms in the areas of human resources, innovation, and the job market.

STAFF APPRAISAL

62. A cyclical recovery is underway despite heightened geopolitical tensions, but potential growth has slowed down. Long-term growth is hindered by adverse demographics and slowing productivity growth, driven by structural weaknesses. Income inequality and polarization are worsening, partly reflecting inadequate social protection and labor and product market duality. Korea’s external position is stronger than warranted by medium-term fundamentals and desirable policies.

63. Fiscal policy should become significantly more expansionary to support growth and reduce excessive external imbalances. Staff recommends that the government reduce the structural balance toward zero by at least 0.5 percentage point each year during the coming years.

Korea has substantial fiscal space to aim for a zero-structural balance in the short and medium run without a risk to debt sustainability. In the longer term, fiscal challenges from the aging population will necessitate greater revenue mobilization.

64. Monetary policy should remain accommodative as inflationary pressures are likely to remain subdued. Early and decisive action to ease the fiscal stance would facilitate a rebalancing of the policy mix. Monetary policy credibility could be enhanced by strengthening communication of policy intentions. This involves clarifying the BOK's "policy reaction function" that describes the conditions under which it will adjust policy rates in the future. The exchange rate should continue to be allowed to move flexibly, with intervention limited to addressing disorderly market conditions.

65. Macroprudential policies are effectively addressing financial stability challenges. They remain necessary to contain risks from high household debt. Corporate restructuring has to proceed expeditiously.

66. Fiscal policy should be used to enhance social safety nets and support long-term growth. A targeted expansion in social spending would mitigate income inequality, promote consumption-led growth and economic rebalancing. Staff supports the government's intention to increase the share of spending towards social welfare. This needs to be accompanied by a reduction in the fiscal surplus to maximize the impact on growth. Public spending on ALMP and childcare should also increase to boost labor supply and potential output.

67. To mitigate duality and support job creation, Korea should adopt "flexicurity" in the labor market. This involves three pillars: (i) more flexibility for regular workers; (ii) a strong and inclusive safety net for the unemployed; and (iii) Active Labor Market Policies. Implementing all three pillars is critical. While there is scope to expand public sector jobs, the government should be cautious in expanding public employment to create jobs. The minimum wage should be increased cautiously going forward and any compensatory subsidy to SMEs should be temporary. To support youth employment, existing measures such as Meister schools, the work-study dual system, and internships could be strengthened. Policies should also focus on strengthening female labor force participation and leadership.

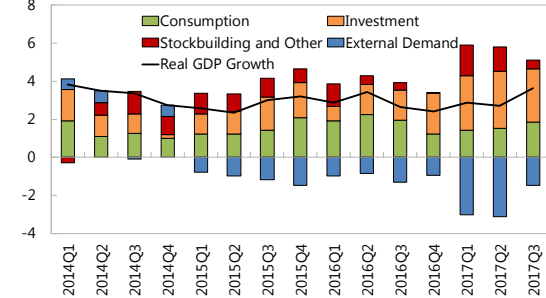
68. The regulatory burden for firms should be eased especially in the service sector. Government policy towards SMEs should prioritize fostering growth and innovation, rather than shielding weaker firms. Finally, there is scope to better design and coordinate R&D support.

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

Figure 1. Korea: Recent Economic Developments

After slowing down in the second part of 2016, growth picked up in the first three quarters of 2017...

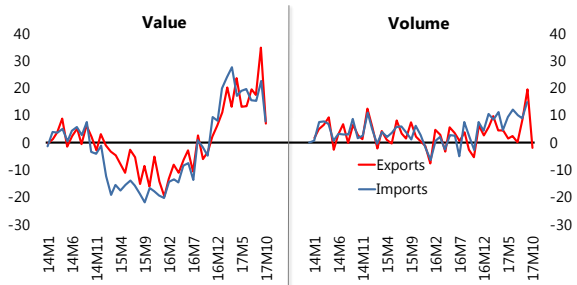
Contributions to GDP Growth
(In percent)



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

... with imports growing faster than exports.

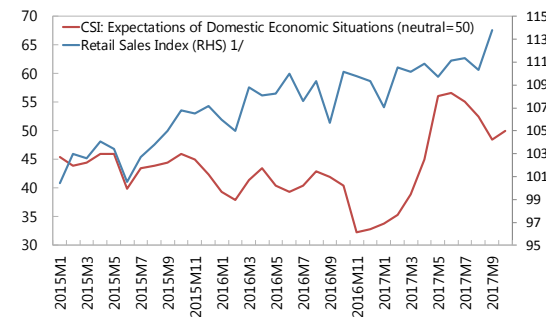
Exports/Imports
(Y-o-Y growth)



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

Consumer sentiment rebounded since last year's low, with domestic sales also picking up.

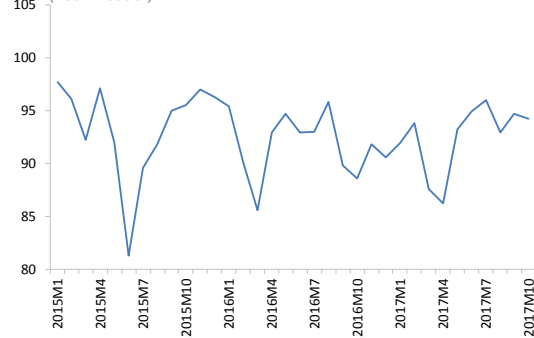
Retail Sales and Consumer Sentiment Indices



Sources: Haver.
1/ Base: 2014M1=100

Business sentiment recovered as well.

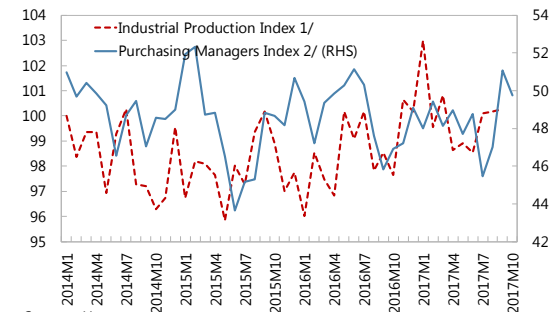
Business Sentiment Index
(100=Neutral)



Source: CEIC Data Company Ltd.

IP and PMI have improved in 2017.

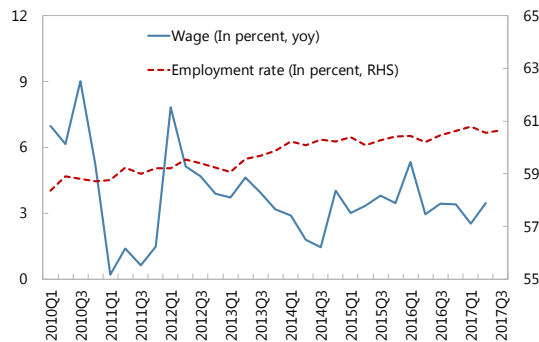
Industrial Production and Purchasing Manager Index



Sources: Haver.
1/Base: 2014M1=100
2/Manufacturing Output (SA, 50+=Expansion)

Annual wage growth has been weak, while the employment rate remained on a gradually increasing trend.

Labor Market

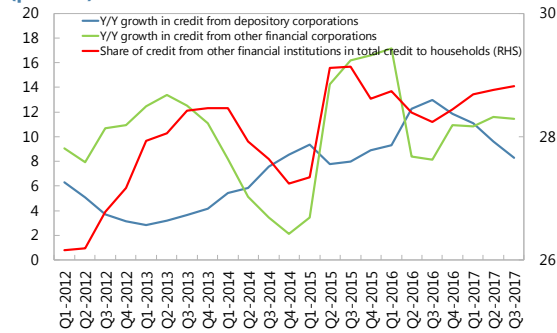


Sources: CEIC Data Company; and Korea Statistics.

Figure 2. Korea: Recent Financial Developments

Household loan growth remains robust, despite some slowdown, especially in bank credit.

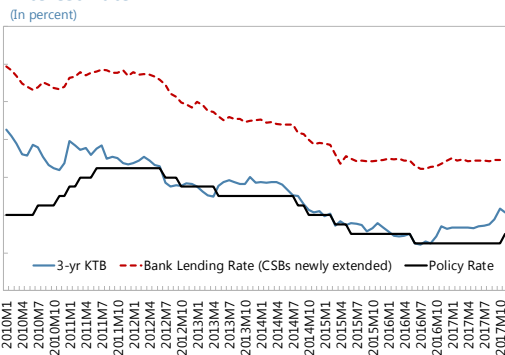
Credit to Households (percent)



Sources: Haver

Interest rates started picking up.

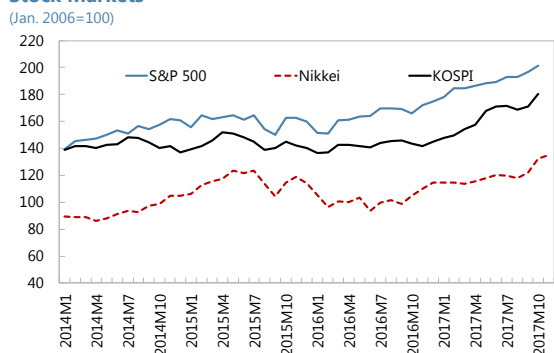
Interest Rate (In percent)



Source: CEIC Data Company Ltd.

The stock market continued to rally throughout the year.

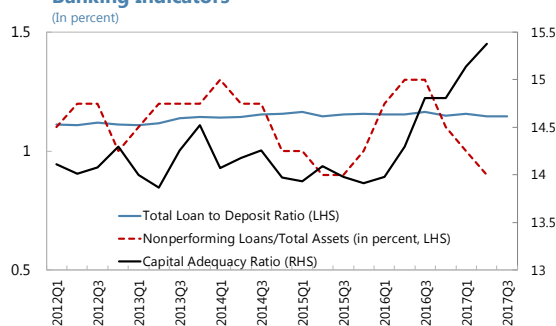
Stock Markets (Jan. 2006=100)



Source: IMF APDCORE database.

The banking system is sound and well-capitalized.

Banking Indicators (In percent)

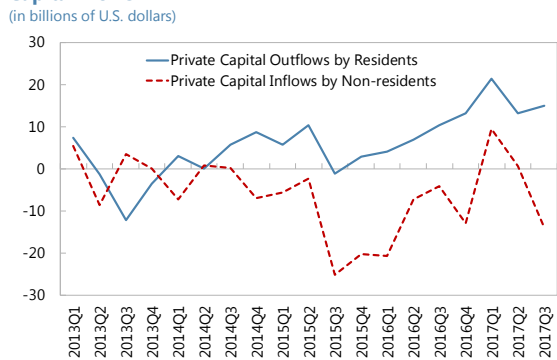


Source: Financial Supervisory Service (FSS)

Note: Total loan consists of Bank Account, Trust Account, and Merchant Banking Account.

Capital inflows were positive in the first three quarters, albeit turning negative in Q3.

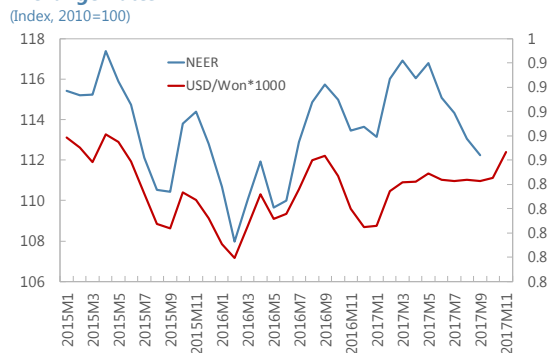
Capital Flows (in billions of U.S. dollars)



Sources: Haver; IMF staff calculations.

The bilateral exchange rate appreciated against the dollar.

Exchange Rates (Index, 2010=100)

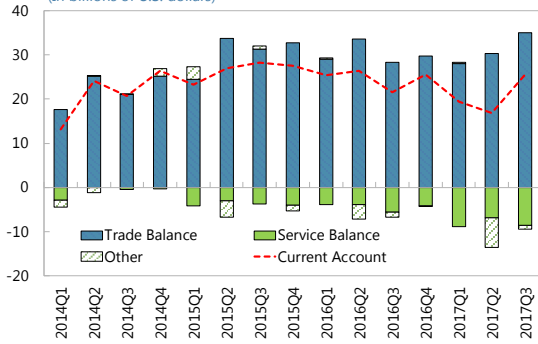


Sources: IMF APDCore Database; Haver; staff calculations.

Figure 3. Korea: External Sector

The current account surplus narrowed until Q2 2017, but widened in Q3...

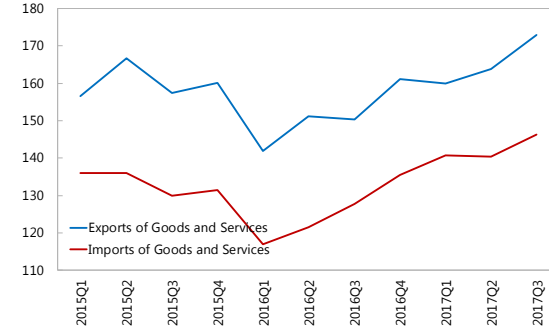
Current Account Balance
(In billions of U.S. dollars)



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

...as exports growth picked up strongly.

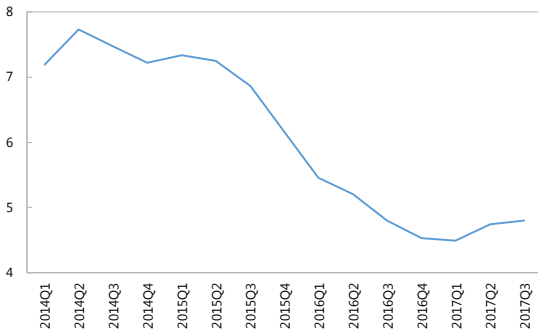
Exports and Imports of Goods and Services
(billion US\$)



Sources: Bank of Korea.

The secular decline in shipping services has bottomed out, ...

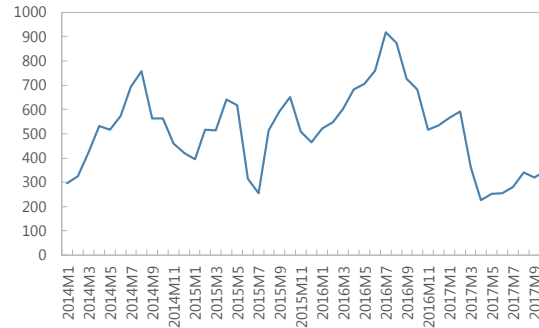
Sea Transport Credit
(billion US\$)



Sources: Bank of Korea.

...while the number of tourists from China dropped significantly

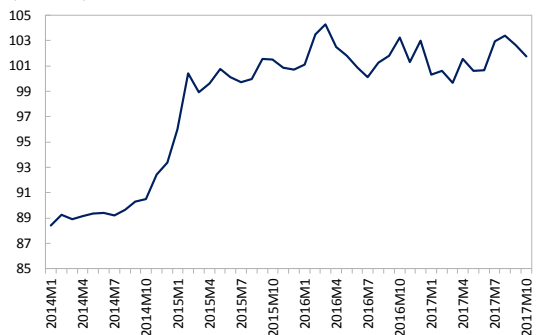
Number of Tourists from China
(Thousands of persons)



Sources: Haver.

The terms of trade have remained high, declining slightly in recent months.

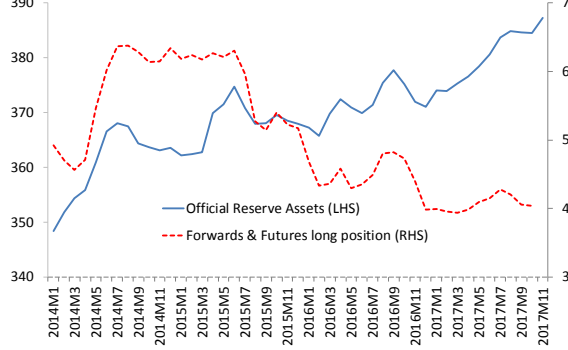
Terms of Trade Index
(2010=100)



Source: CEIC Data Company Ltd.

Reserves have continued to increase in 2017.

Reserves and Net Flows
(USD Billions)



Source: CEIC Data Company Ltd.

Table 1. Korea: Selected Economic Indicators, 2014–18

	2014	2015	2016	Projections	
				2017	2018
Real GDP (percent change)	3.3	2.8	2.8	3.2	3.0
Total domestic demand	3.1	4.0	3.7	5.0	3.0
Final domestic demand	2.5	3.2	3.6	4.8	2.9
Consumption	2.0	2.4	2.9	2.8	3.3
Gross fixed investment	3.4	5.1	5.2	9.0	2.3
Stock building 1/	0.0	0.5	-1.5	0.2	0.0
Net foreign balance 1/	0.4	-1.1	-1.0	-1.9	0.3
Nominal GDP (in trillions of won)	1,486	1,564	1,637	1,732	1,805
Saving and investment (in percent of GDP)					
Gross national saving	34.5	35.6	35.7	36.6	36.0
Gross domestic investment	29.3	28.9	29.2	31.0	30.7
Current account balance	6.0	7.7	7.0	5.6	5.4
Prices (percent change)					
CPI inflation (end of period)	0.8	1.1	1.3	2.1	1.9
CPI inflation (average)	1.3	0.7	1.0	2.0	1.9
Core inflation (average)	1.7	2.4	1.9	...	...
GDP deflator	0.6	2.4	1.8	2.4	1.1
Real effective exchange rate	6.6	1.3	-1.9	...	...
Trade (percent change)					
Export volume	4.3	2.5	1.0	5.4	3.7
Import volume	4.6	3.2	1.2	8.2	3.6
Terms of trade	1.7	12.0	1.0	0.4	-0.9
Consolidated central government (in percent of GDP)					
Revenue	21.2	21.5	22.5	22.4	22.7
Expenditure	20.8	20.9	20.7	21.2	21.2
Net lending (+) / borrowing (-)	0.4	0.6	1.7	1.2	1.4
Overall balance (authorities)	0.6	0.0	1.0	0.8	1.0
Excluding Social Security Funds	-2.0	-2.4	-1.4	-1.7	-1.6
Structural balance	0.6	0.8	2.0	1.4	1.5
General government debt	35.9	37.8	38.3	37.6	37.3
Central government debt	33.9	35.6	36.1	35.4	35.1
Money and credit (end of period)					
Credit growth	7.4	7.6	7.3	6.2	6.1
Overnight call rate	2.0	1.5	1.3	...	...
Three-year AA- corporate bond yield	2.4	2.1	2.1	...	...
M3 growth	8.7	9.0	7.9	7.9	7.9
Balance of payments (in billions of U.S. dollars)					
Exports, f.o.b.	613.0	542.9	511.9	569.1	603.3
Imports, f.o.b.	524.1	420.6	393.1	446.6	476.9
Oil imports	94.9	55.1	44.3	57.3	65.9
Current account balance	84.4	105.9	99.2	85.6	88.7
Gross international reserves (end of period) 2/	358.8	363.2	366.3	366.9	368.5
In percent of short-term debt (residual maturity)	208.8	231.6	236.6	240.5	240.1
External debt (in billions of U.S. dollars)					
Total external debt (end of period)	424.3	396.1	380.9	364.9	354.0
Of which: Short-term (end of period)	116.4	104.3	105.2	106.0	106.9
Total external debt (in percent of GDP)	30.1	28.6	27.0	23.8	21.4
Debt service ratio 3/	7.9	9.0	9.3	8.4	7.8

Sources: Korean authorities; 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: Medium-Term Projections, 2015–2022

	Projections							
	2015	2016	2017	2018	2019	2020	2021	2022
Real GDP (percent change)	2.8	2.8	3.2	3.0	2.9	2.8	2.7	2.6
Total domestic demand	3.8	2.0	5.0	3.0	3.1	3.1	3.1	3.1
Final domestic demand	3.2	3.6	4.8	2.9	3.1	3.1	3.1	3.1
Consumption	2.4	2.9	2.8	3.3	3.3	3.2	3.2	3.2
Gross fixed investment	5.1	5.2	9.0	2.3	2.7	2.7	2.8	2.8
Stock building 1/	0.5	-1.5	0.2	0.0	0.0	0.0	0.0	0.0
Net foreign balance 1/	-1.1	-1.0	-1.9	0.3	0.0	-0.1	-0.2	-0.3
Prices, period average (percent change)								
Consumer price	0.7	1.0	2.0	1.9	1.9	2.0	2.0	2.0
GDP deflator	2.4	1.8	2.4	1.1	2.0	2.1	2.1	2.1
Savings and investment (in percent of GDP)								
Gross national savings	36.6	36.2	36.6	36.0	36.0	35.9	35.8	35.7
Gross domestic investment	28.9	29.2	31.0	30.7	30.4	30.3	30.2	30.1
Current account balance	7.7	7.0	5.6	5.4	5.5	5.6	5.6	5.5
Money and credit (end of period)								
Credit growth 2/	7.6	7.3	6.2	6.1	5.9	5.9	5.9	5.9
Consolidated central government (in percent of GDP)								
Revenue	21.5	22.5	22.4	22.7	22.8	22.6	22.5	22.5
Expenditure	20.9	20.7	21.2	21.2	21.4	21.5	21.5	21.4
Net lending (+) / borrowing (-)	0.6	1.7	1.2	1.4	1.4	1.2	1.1	1.1
Overall balance (authorities)	0.0	1.0	0.8	1.0	1.0	0.8	0.7	0.8
Excluding Social Security Funds	-2.4	-1.4	-1.7	-1.6	-1.8	-2.0	-2.1	-2.1
Trade (percent change)								
Merchandise exports	-11.4	-5.7	11.2	6.0	4.7	4.3	4.4	3.9
Volumes 3/	2.5	0.8	5.4	3.7	3.9	3.7	3.6	3.5
Merchandise imports	-19.8	-6.6	13.6	6.8	4.2	4.5	4.9	4.3
Volumes 3/	3.1	1.1	8.2	3.6	3.8	3.9	3.9	4.0
Terms of trade	12.0	1.0	0.4	-0.9	0.3	0.1	-0.2	0.2
Balance of payments (in billions of U.S. dollars)								
Current account	105.9	99.2	85.6	88.7	95.3	101.1	104.2	107.0
(In percent of GDP)	7.7	7.0	5.6	5.4	5.5	5.6	5.6	5.5
Trade balance	122.3	118.9	122.5	126.4	134.4	139.3	142.7	146.6
Merchandise exports	542.9	511.9	569.1	603.3	631.5	658.6	687.7	714.8
Merchandise imports	420.6	393.1	446.6	476.9	497.2	519.3	545.0	568.2
External debt								
In billions of U.S. dollars 4/	396.1	380.9	364.9	354.0	347.8	343.0	340.2	338.7
(In percent of GDP)	28.6	27.0	23.8	21.4	20.2	19.1	18.2	17.5
Of which: Short-term (end of period)	7.5	7.5	6.9	6.5	6.2	6.0	5.8	5.7
Debt service ratio 5/	9.0	9.3	8.4	7.8	7.7	7.4	6.8	6.3
Memorandum items:								
Nominal GDP (in trillions of won)	1,564	1,637	1,732	1,805	1,895	1,989	2,087	2,188
Per capita GDP (in U.S. dollars)	27,097	27,533	29,748	31,957	33,248	34,493	35,710	36,940
Output gap (percent of potential GDP)	-1.1	-1.1	-0.6	-0.3	-0.1	0.0	0.1	0.1

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

1/ Contribution to GDP growth.

2/ Depository corporations credit to private sector.

3/ Customs clearance basis.

4/ Includes offshore borrowing of domestic financial institutions and debt contracted by their overseas branches.

5/ Debt service on medium- and long-term debt in percent of exports of goods and services.

Table 3. Korea: Balance of Payments, 2013–18

(In billions of U.S. dollars, unless otherwise indicated, BPM6 sign)

	2013	2014	2015	2016	Projections	
					2017	2018
Current account balance	81.1	84.4	105.9	99.2	85.6	88.7
Trade balance	82.8	88.9	122.3	118.9	122.5	126.4
Exports	618.2	613.0	542.9	511.9	569.1	603.3
(growth rate, in percent)	2.4	-0.8	-11.4	-5.7	11.2	6.0
Imports	535.4	524.1	420.6	393.1	446.6	476.9
(growth rate, in percent)	-3.4	-2.1	-19.8	-6.6	13.6	6.8
Services	-6.5	-3.7	-14.9	-17.7	-33.7	-35.6
Primary income	9.1	4.2	3.6	3.9	3.2	4.9
Secondary income	-4.2	-5.0	-5.0	-5.8	-6.3	-7.0
Financial and capital account balance	63.8	71.5	94.3	95.0	85.0	87.1
Financial account	63.8	71.4	94.2	95.0	85.0	87.1
Portfolio investment, net 1/	4.9	26.8	51.3	63.5	51.9	52.1
Direct investment, net	15.6	18.8	19.7	17.9	19.4	20.9
Inflows	12.8	9.3	4.1	12.1	12.1	12.1
Outflows	28.4	28.0	23.8	30.0	31.5	33.0
Other investment, assets	37.1	38.4	16.0	14.4	12.8	13.3
Other investment, liabilities	-6.2	12.5	-7.3	0.8	-1.0	-0.8
<i>Of which:</i> trade credits	0.3	-0.5	-4.4	0.6	-1.2	-1.0
<i>Of which:</i> short-term loans	-5.7	5.6	-0.8	2.0	2.0	2.0
<i>Of which:</i> medium- and long-term loans	-0.5	5.3	1.1	-4.8	-4.8	-4.8
Capital account	0.0	0.0	-0.1	0.0	0.0	0.0
Net errors and omissions	-1.0	5.0	0.4	3.4	0.0	0.0
Overall balance	-16.3	-17.9	-12.1	-7.6	-0.6	-1.6
Financing	16.3	17.9	12.1	7.6	0.6	1.6
Change in reserves (increase +)	16.3	17.9	12.1	7.6	0.6	1.6
Net IMF purchases	0.0	0.0	0.0	0.0	0.0	0.0
World Bank/AsDB 1/	0.0	0.0	0.0	0.0	0.0	0.0
Memorandum items:						
Current account balance (in percent of GDP)	6.2	6.0	7.7	7.0	5.6	5.4
Trade balance (in percent of GDP)	6.3	6.3	8.8	8.4	8.0	7.7
Gross reserves minus gold	341.7	358.8	363.2	366.3	366.9	368.5
(in months of imports of goods and services)	6.4	6.7	8.2	8.7	7.7	7.2
External debt	423.5	424.3	396.1	380.9	364.9	354.0
(in percent of GDP)	32.4	30.1	28.6	27.0	23.8	21.4
Short-term external debt (inc. trade credits)	111.8	116.4	104.3	105.2	106.0	106.9
Nominal GDP (U.S. dollars)	1305.4	1411.0	1382.4	1411.0	1530.7	1651.0

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

1/ Includes financial derivatives, net.

Table 4. Korea: Statement of Central Government Operations, 2014–18

	2014	2015	Projections		
			2016	2017	2018
	(In trillions of won)				
Revenue	315.0	335.9	367.9	387.6	409.3
Tax revenue	205.5	217.9	242.6	261.4	276.1
Social contributions	59.8	63.0	65.9	69.7	72.7
<i>Of which: Social security contributions</i>	49.8	53.1	56.9	60.2	62.7
Other revenue	49.7	55.1	59.4	56.4	60.5
Expenditure	308.8	327.3	339.2	366.5	383.4
Expense	297.4	315.8	329.1	354.4	370.7
Net acquisition of nonfinancial assets	11.4	11.4	10.2	12.1	12.6
Net lending (+) / borrowing (-)	6.2	8.6	28.7	21.0	25.9
Overall balance (authorities)	8.5	-0.2	16.9	13.2	18.4
Less: Social Security Fund balance	38.0	37.8	39.6	43.2	47.1
Overall balance excluding Social Security Funds	-29.5	-38.0	-22.7	-30.0	-28.7
Net acquisition of financial assets	10.3	14.4	47.7	35.0	43.2
Domestic	10.1	14.1	46.8	34.3	42.3
Currency and deposits	-0.2	-0.3	-1.0	-0.7	-0.9
Loans	10.3	14.4	47.7	35.0	43.2
Others	0.0	0.0	0.0	0.0	0.0
Foreign	0.2	0.3	1.0	0.7	0.9
Currency and deposits	0.0	0.0	0.0	0.0	0.0
Loans	0.2	0.3	1.0	0.7	0.9
Monetary gold and SDR	0.0	0.0	0.0	0.0	0.0
Net incurrence of liabilities	4.1	5.8	19.1	14.0	17.3
Domestic	4.1	5.8	19.1	14.0	17.3
Foreign	0.0	0.0	0.0	0.0	0.0
Loans	0.0	0.0	0.0	0.0	0.0
	(In percent of GDP)				
Revenue	21.2	21.5	22.5	22.4	22.7
Tax revenue	13.8	13.9	14.8	15.1	15.3
Social contributions	4.0	4.0	4.0	4.0	4.0
<i>Of which: Social security contributions</i>	3.4	3.4	3.5	3.5	3.5
Other revenue	3.3	3.5	3.6	3.3	3.4
Expenditure	20.8	20.9	20.7	21.2	21.2
Expense	20.0	20.2	20.1	20.5	20.5
Net acquisition of nonfinancial assets	0.8	0.7	0.6	0.7	0.7
Net lending (+) / borrowing (-)	0.4	0.6	1.7	1.2	1.4
Less: Policy lending	-0.2	0.6	0.7	0.5	0.4
Overall balance (authorities)	0.6	0.0	1.0	0.8	1.0
Less: Social Security Fund balance	2.6	2.4	2.4	2.5	2.6
Overall balance excluding Social Security Funds (authorities)	-2.0	-2.4	-1.4	-1.7	-1.6
Memorandum items:					
Primary balance (trillion won)	14.2	-4.9	12.9	7.6	12.3
In percent of GDP	1.0	-0.3	0.8	0.4	0.7
Overall structural balance (trillion won)	9.1	12.2	32.6	23.5	27.3
In percent of GDP	0.6	0.8	2.0	1.4	1.5
Overall structural primary balance (trillion won)	17.1	-1.3	16.8	10.0	13.7
In percent of potential GDP	1.2	-0.1	1.0	0.6	0.8
Nominal GDP (trillion won)	1,486.1	1,564.1	1,637.4	1,731.7	1,804.9
Central government debt (trillion won)	503.0	556.5	591.9	613.4	633.8
In percent of GDP	33.9	35.6	36.1	35.4	35.1
General government debt (trillion won)	533.2	590.5	627.5	651.0	673.0
In percent of GDP	35.9	37.8	38.3	37.6	37.3

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

Table 5. Korea: Financial Soundness Indicators

	2011	2012	2013	2014	2015	2016
	(Growth rate, in percent)					
Credit to Private Sector 1/	6.8	3.7	3.2	7.4	7.6	7.3
Loans to Households	8.5	5.2	6.0	6.7	11.0	11.6
Bank Loans to Households	5.7	2.5	3.0	8.0	8.5	9.5
	(In percent)					
Regulatory Capital to Risk-Weighted Assets 2/	14.0	14.3	14.5	14.0	13.9	14.8
Regulatory Tier 1 Capital to Risk-Weighted Assets	10.7	11.1	11.4	11.4	11.3	12.5
Non-performing Loans Net of Provisions to Capital	2.6	3.1	3.6	2.8	2.1	2.9
Non-performing Loans to Total Gross Loans	0.5	0.6	0.6	0.5	0.5	0.5
Return on Assets	1.0	0.7	0.3	0.5	0.5	0.4
Return on Equity	13.2	8.2	4.0	6.0	6.5	4.5
Interest Margin to Gross Income	73.6	78.3	82.2	62.1	62.7	65.3
Non-interest Expenses to Gross Income	63.9	71.4	75.3	73.5	54.6	65.1
Liquid Assets to Total Assets (Liquid Asset Ratio)	35.4	36.2	33.8	37.9	34.4	33.7
Liquid Assets to Short Term Liabilities	109.3	111.3	107.9	122.0	105.5	99.0
Net Open Position in Foreign Exchange to Capital	0.9	0.2	-0.2	0.5	0.04	0.0

Sources: 2011-2014 data was obtained from the Financial Soundness Indicators (FSI) database ; 2015 and 2016 FSI data was obtained from the authorities; Data obtained from Haver includes: Credit to Private sector, Loans to households, and Bank Loans to households.

1/ Depository corporations.

2/ From this indicator on: Depository corporations only.

	Korea	Overall Assessment
Foreign asset and liability position and trajectory	<p>Background. The net international investment position (NIIP) turned positive for the first time in 2014 and has continued to rise. In end-September 2017, it reached 17 percent of GDP, with gross liabilities totaling 74 percent of GDP, of which 27 percent was gross external debt.</p> <p>Assessment. The positive NIIP position strengthens external sustainability and should increase further as the current account remains in surplus. Risks from currency mismatches are much reduced, as short-term external liabilities of banks, which rose to relatively high levels in the wake of the global financial crisis, declined back to below pre-crisis levels. Also, in the non-financial sector the bulk of short-term external debt is held by exporters who typically hedge their currency risk.</p>	<p>Overall Assessment The external position in 2017 is projected to be stronger than warranted by medium-term fundamentals and desirable policies. This reflects excess saving, including for precautionary purposes, as well as relatively weak private investment.</p> <p>Developments as of December 2017 point to a decline in the CA surplus this year to around 5.6 percent of GDP, although it is expected to remain large in the absence of strong fiscal support and well-targeted structural measures.</p> <p>Potential Policy Responses Significantly more expansionary fiscal policy to boost domestic demand in the short and longer run is needed to reduce imbalances given the available fiscal space. This will also contribute to a recalibration of the policy mix, thereby gradually reducing reliance on monetary policy. Structural policies should also play an important role by facilitating rebalancing of the economy toward services and boosting domestic demand growth. These include strengthening the social safety net to lessen incentives for precautionary savings and addressing bottlenecks to investment. The exchange rate should remain market determined, with intervention limited to addressing disorderly market conditions.</p>
Current account	<p>Background. The current account (CA) surplus in the first three quarters of 2017 was 5.7 percent of GDP (seasonally adjusted), a decline from 7.0 percent of GDP in 2016. The large CA surplus reflects increased savings as well as a decline in the share of investment in GDP. The latter may be due to firms shifting investment abroad, reflected in lower domestic investment and higher FDI abroad, and Korea's recent integration into the global value chain. 1/ That said, the CA surplus has been falling since mid-2015, reflecting a combination of temporary and structural factors. These included (i) challenges in the corporate sector -particularly for shipping services and shipbuilding- as discussed in the previous Article IV, (ii) an increase in commodity prices, (iii) a decline in tourism from China and (iv) a boom in construction and a recent strong recovery in facilities investment (machinery and equipment), resulting in a strong pick up in imports, despite the tight fiscal stance. The CA surplus is projected to decline further next year but remain large in the absence of strong fiscal support and well targeted structural measures.</p> <p>Assessment. The preliminary EBA model estimates the 2017 cyclically adjusted CA surplus to be 4.8 percent of GDP, and the cyclically adjusted EBA CA norm to be 1.8 percent of GDP. The EBA estimated CA gap is adjusted for net retained earnings on equity investments, which are not recorded in the investment income balance of the CA. This factor is estimated to unduly increase the CA gap by about 0.7 percent of GDP. Including this adjustment, staff estimates the CA gap midpoint to be 2.3 percent of GDP with a range of 0.3–4.3 percent of GDP that is based on the EBA standard deviation. This is in the stronger-than-warranted range of 2 to 4 percent. There is also a high degree of uncertainty surrounding the temporary versus structural factors contributing to the large current account surplus. The CA gap reflects identified policy gaps and an unexplained component. A key contributor to the policy gap are tighter than-desired fiscal policy and relatively low social spending, reflected in a smaller social safety net compared to other EBA countries, which significantly increases precautionary savings and the current account surplus. To durably reduce the CA surplus, significant policy adjustment is required. The fiscal stance is tighter than warranted, and a significantly more expansionary policy is needed. This would exploit Korea's substantial fiscal space.</p>	
Real exchange rate	<p>Background. The REER has been on a gradual appreciating trend since 2013 until 2016, when the REER depreciated by 2.3 percent relative to its 2015 average on a trade-weighted basis. However, the REER appreciated by 2.7 percent in 2017 (first three quarters average vs. 2016 average)</p> <p>Assessment EBA 's REER regressions suggest a wide range of estimated gaps. The REER regression methods suggest gaps of –15.3 percent (EBA Level REER model) and +0.9 percent (EBA Index REER model). The CA regression direct approach, which produces a more reliable estimate, implies a gap of 6 ½ percent, which is used as the mid-point of the estimated range. Overall, the REER for 2017 is assessed to be 1 to 12 percent below the level consistent with fundamentals and desired policies, with this range reflecting the high degree of uncertainty in the CA regression model.</p>	
Capital and financial accounts: flows and policy measures	<p>Background. Net capital outflows have been relatively stable over the medium term despite significant shifts in composition. In the first three quarters of 2017 they decreased to 5.6 percent of GDP from 7 percent of GDP in 2016. Compared to the first three quarters of last year, net non-FDI capital inflows increased by \$10 billion. Non-resident portfolio inflows surged US\$16.6 billion as foreigners sharply expanded purchases of debt securities. Equity inflows have also been strong, with the share of foreign ownership in the domestic stock market rising to more than 34 percent in September, and contributing to an all-time high in stock prices.</p> <p>Assessment. The present configuration of net and gross capital flows appear sustainable over the medium term. Korea has demonstrated the capacity to absorb short term capital-flow volatility in magnitudes occurred over the last few years.</p>	
FX intervention and reserves level	<p>Background. Korea has a floating exchange rate. FX intervention appears to have been two-sided since early 2015, based on staff estimates. Reserves increased steadily from 2009 through mid-2014, but have since remained broadly stable. Until November 2017, reserves increased by \$16 billion year-to-date and stood at 24.7 percent of GDP, with around \$12 billion estimated to stem from valuation changes and interest income. The forward position increased by \$0.6 billion until October 2017 (0.04 percent of GDP).</p> <p>Assessment. Intervention appears to have been limited to address disorderly market conditions since 2015. Foreign exchange reserves were around 120 percent of the IMF's composite reserve adequacy metric at end November 2017, which provides sufficient buffer against a wide range of possible external shocks.</p>	
Technical Background Notes	1/ For a multilaterally consistent approach, see "Global Value Chain Participation and Current Account Imbalances" by Johannes Brumm et. al. (2015).	

Risks	Likelihood	Potential Impact	Policy Response
Global Risks			
Retreat from cross-border integration	Medium A fraying consensus about the benefits of globalization lead to protectionism and economic isolationism, resulting in reduced global and regional policy collaboration with negative consequences for trade, capital and labor flows, sentiment, and growth.	High A rise in trade protectionism could significantly weaken export growth and lead to increases equity market volatility given that Korea is a relatively open economy export orientated corporations. This could trigger capital outflows and weaken the currency.	Accommodative fiscal and monetary policies and a flexible exchange rate will help mitigate these adverse macroeconomic and market effects. Continue multilateral efforts to maintain global and bilateral trade agreements with adjustments where needed to protect them. Implement policies to boost sustainable domestic demand.
Tighter global financial conditions	High Fed normalization and tapering by ECB increase global rates and term premia, strengthen the U.S. dollar and the euro vis-à-vis the other currencies, and correct market valuations. Adjustments could be disruptive if there are policy surprises.	Medium Policy surprises could increase volatility in the financial markets that would undermine confidence and trigger capital outflow.	Rely on a flexible exchange rate as the main shock absorber. Macro-prudential policies could help limit spillovers into the domestic financial system.
Significant China slowdown and its spillovers	Medium Efforts to rein in financial sector risks, though desirable, expose vulnerabilities of indebted entities and reduce near-term growth. Over the medium term, overly ambitious growth targets lead to unsustainable policies, reducing fiscal space, and further increasing financial imbalances. Should a sharp adjustment occur, this would entail weak domestic demand, which in turn would lower commodity prices, roil global financial markets, and reduce global growth.	High China is Korea's largest trading partner making Korea vulnerable to a slowdown in China. Second-round effects could also be significant as a China slowdown would impact global growth and market sentiment.	Accommodative fiscal and monetary policies, and a flexible exchange rate, are needed to mitigate the macroeconomic and financial market impact. Continue efforts to diversify export markets and the manufacturing base through structural policies.
Significant slowdown in other large EMs/frontier economies	Medium Resource misallocation and policy missteps exacerbate the impact of declining productivity and potential growth. In addition, turning of the domestic credit cycle generates disorderly household and corporate deleveraging, with potential spillbacks to advanced economies.	Low Korean exports would be adversely affected. In the event of capital outflows from EMs, Korea could be treated as a safe haven, helping to dampen the adverse effect.	More accommodative fiscal and monetary policies could mitigate the macroeconomic impact. Efforts to diversify export markets towards AEs could mitigate the impact.
Structurally weak growth in key advanced economies	High Low productivity growth (U.S., the Euro Area, and Japan), a failure to fully address crisis legacies and undertake structural reforms, and persistently low inflation (the Euro Area, and Japan) undermine medium-term growth in advanced economies.	High Slower foreign growth lead to weaker exports and corporate profits, and higher unemployment. These would raise credit risks in the corporate and household sectors.	Expansionary monetary and fiscal policies plus structural reforms to accelerate rebalancing toward domestic demand. through structural reforms and, while maintaining appropriate macroprudential policies to mitigate risks to the stability of the financial system.

Risks	Likelihood	Potential Impact	Policy Response
Increase in geopolitical risks	High Geopolitical risks related to North Korea are elevated and could remain so in the medium term. A military confrontation is a low probability event.	High Tensions with North Korea could exacerbate uncertainty, adversely impacting financial markets and an adverse impact on investment over the medium term.	Maintaining the flexible exchange rate regime and active macro-prudential policies to contain potential stress in the financial markets. If tail risks materialize, a fiscal expansion would likely be warranted.
Domestic Risks			
Excessive household debt weakening consumption and financial stability	Medium High household debt could impede the recovery of consumption, especially if interest rates were to increase given that about 60 percent of household debt is at variable rate. A rise in household defaults could also impact banks' profitability.	Medium The recovery in consumption expected to support growth going forward could be weaker.	Implement expansionary fiscal policy and accommodative monetary policy to support economic recovery, while using macroprudential policies to limit risks to the banking system.
<p>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. "Short term" and "medium term" are meant to indicate that the risk could materialize within 1 year and 3 years, respectively.</p>			

Annex III. Debt Sustainability Analysis

Korea Public Sector Debt Sustainability Analysis (DSA) - Baseline Scenario

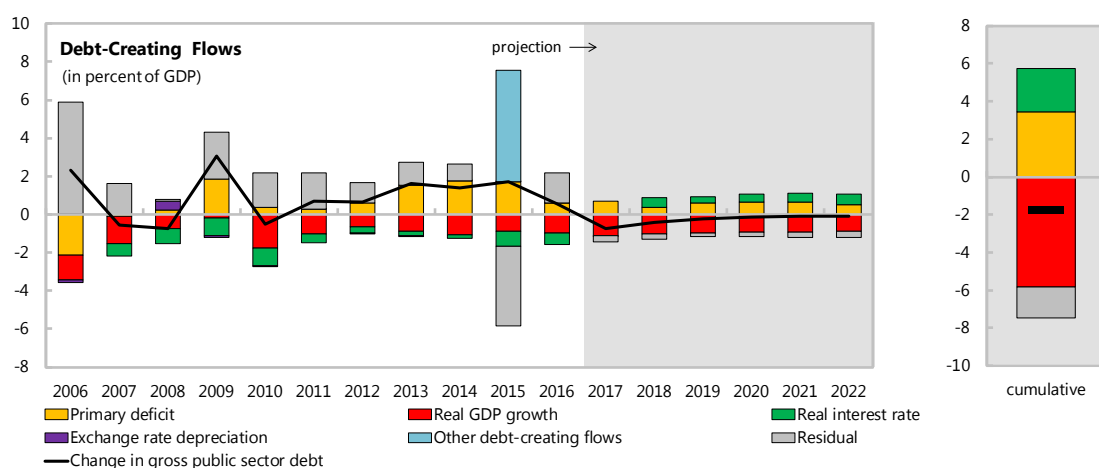
(in percent of GDP unless otherwise indicated)

Debt, Economic and Market Indicators ^{1/}

	Actual			Projections						As of September 27, 2017		
	2006-2014 ^{2/}	2015	2016	2017	2018	2019	2020	2021	2022	Sovereign Spreads		
Nominal gross central government debt	30.0	35.6	36.1	35.4	35.0	34.8	34.6	34.5	34.4	EMBIG (bp) ^{3/} 238		
Gross financing needs	5.5	6.8	5.7	1.3	1.5	2.2	2.2	2.7	2.7	5Y CDS (bp) 75		
Real GDP growth (in percent)	3.7	2.8	2.8	3.2	3.0	2.9	2.8	2.7	2.7	Ratings	Foreign	Local
Inflation (GDP deflator, in percent)	1.8	2.4	1.8	2.4	1.5	2.0	2.2	2.1	2.1	Moody's	Aa2	Aa2
Nominal GDP growth (in percent)	5.5	5.3	4.7	5.8	4.6	4.9	5.0	4.9	4.8	S&Ps	AA	AA
Effective interest rate (in percent) ^{4/}	4.0	2.8	2.5	2.5	3.1	3.1	3.4	3.6	3.9	Fitch	AA-	AA-

Contribution to Changes in Public Debt

	Actual			Projections						cumulative	debt-stabilizing primary balance ^{9/}
	2006-2014	2015	2016	2017	2018	2019	2020	2021	2022		
Change in gross central government debt	0.9	1.7	0.6	-0.7	-0.4	-0.2	-0.1	-0.1	-0.1	-1.7	
Identified debt-creating flows	-1.0	5.9	-1.0	-0.4	-0.1	0.0	0.1	0.2	0.2	-0.1	
Primary deficit	0.5	1.7	0.6	0.7	0.4	0.6	0.7	0.6	0.5	3.4	
Primary (noninterest) revenue and grants	17.1	16.3	17.2	17.3	17.3	17.3	17.2	17.1	17.1	103.4	
Primary (noninterest) expenditure	17.6	18.0	17.8	17.9	17.7	17.9	17.9	17.8	17.7	106.9	
Automatic debt dynamics ^{5/}	-1.5	-1.7	-1.6	-1.1	-0.5	-0.6	-0.5	-0.4	-0.3	-3.5	
Interest rate/growth differential ^{6/}	-1.5	-1.7	-1.6	-1.1	-0.5	-0.6	-0.5	-0.4	-0.3	-3.5	
Of which: real interest rate	-0.5	-0.8	-0.6	0.0	0.5	0.4	0.4	0.5	0.6	2.3	
Of which: real GDP growth	-1.0	-0.9	-1.0	-1.1	-1.0	-1.0	-0.9	-0.9	-0.9	-5.8	
Exchange rate depreciation ^{7/}	0.0	0.0	0.0	...	...	...	...	...	...	...
Other identified debt-creating flows	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
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	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Please specify (2) (e.g., ESM and Euroarea)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Residual, including asset changes ^{8/}	1.9	-4.2	1.6	-0.3	-0.3	-0.2	-0.2	-0.3	-0.3	-1.6	



Source: IMF staff.

1/ Public sector is defined as central government.

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.

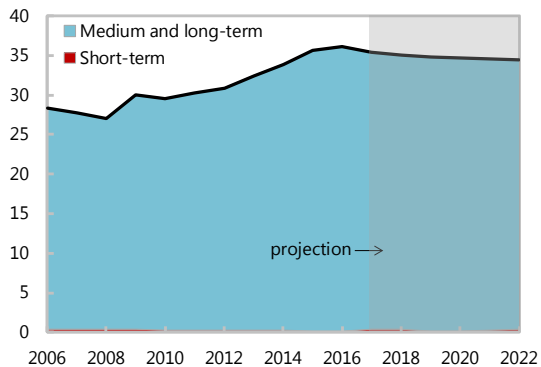
9/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

Korea Public DSA - Composition of Public Debt and Alternative Scenarios

Composition of Public Debt

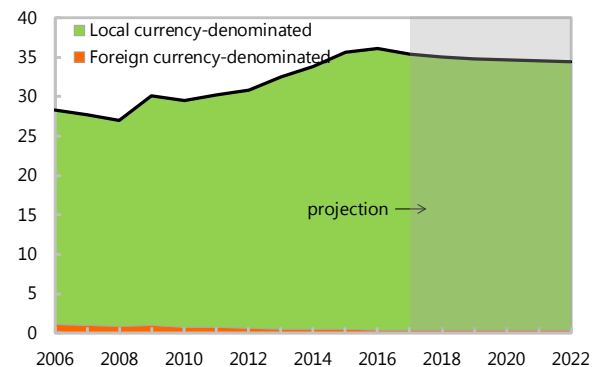
By Maturity

(in percent of GDP)



By Currency

(in percent of GDP)



Alternative Scenarios

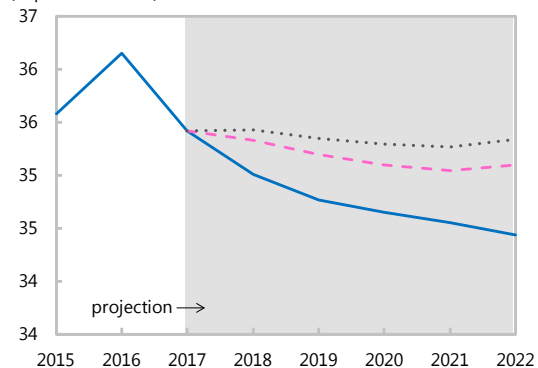
— Baseline

..... Historical

- - - Constant Primary Balance

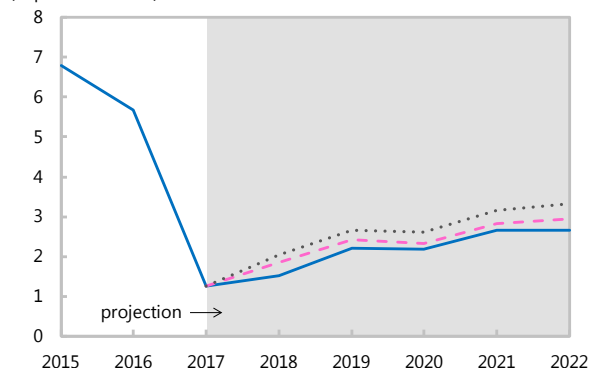
Gross Nominal Public Debt

(in percent of GDP)



Public Gross Financing Needs

(in percent of GDP)



Underlying Assumptions

(in percent)

Baseline Scenario

	2017	2018	2019	2020	2021	2022
Real GDP growth	3.2	3.0	2.9	2.8	2.7	2.7
Inflation	2.4	1.5	2.0	2.2	2.1	2.1
Primary Balance	-0.7	-0.4	-0.6	-0.7	-0.6	-0.5
Effective interest rate	2.5	3.1	3.1	3.4	3.6	3.9

Historical Scenario

	2017	2018	2019	2020	2021	2022
Real GDP growth	3.2	3.3	3.3	3.3	3.3	3.3
Inflation	2.4	1.5	2.0	2.2	2.1	2.1
Primary Balance	-0.7	-0.9	-0.9	-0.9	-0.9	-0.9
Effective interest rate	2.5	3.1	3.1	3.4	3.7	4.0

Constant Primary Balance Scenario

	2017	2018	2019	2020	2021	2022
Real GDP growth	3.2	3.0	2.9	2.8	2.7	2.7
Inflation	2.4	1.5	2.0	2.2	2.1	2.1
Primary Balance	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7
Effective interest rate	2.5	3.1	3.1	3.4	3.6	3.9

Source: IMF staff.

Annex IV. Main Recommendations from the 2016 Article IV Consultation and Follow Up

1. The 2016 Article IV consultation was concluded by the Executive Board of the International Monetary Fund on July 29, 2016. Executive Directors commended Korea's remarkable economic achievements over the past sixty years. They noted, however, that the Korean economy now faces structural constraints to sustain its strong growth.
2. Directors broadly agreed that, given Korea's low public debt, fiscal support can be used to incentivize structural reforms, cushion any adverse effects, and support growth. They supported a carefully targeted expansion of social expenditure over the medium term. However, they acknowledged the authorities' aim to safeguard long run fiscal sustainability.
4. Directors supported the authorities' efforts on corporate restructuring, and urged timely implementation of such efforts for distressed. They welcomed the plan to recapitalize the policy banks, but stressed the importance of sufficient budgetary resources and the need to unwind the bridge financing provided by the Bank of Korea.
5. Directors concurred that labor market reforms are critical to address segmentation and boost female labor force participation. They underscored the need to promote competition in the service sector and among small and medium enterprises to raise productivity.
6. Directors broadly agreed that fiscal and monetary policies should remain supportive, in view of the current weak conjuncture and downside risks. A few Directors, however, expressed caution regarding the effectiveness and potential implications of further fiscal and monetary stimulus.
7. Directors recommended tightening and harmonizing macroprudential standards across banks and nonbanks to contain risks from rising household debt.
8. Regarding the external sector, some Directors called for a more explicit focus on reduction of the current account surplus. Directors stressed the need to continue to allow the exchange rate to move flexibly to facilitate rebalancing and adjustment to shocks.
9. The authorities have put in place measures to safeguard financial stability and reduce income inequality.
 - A variety of macroprudential measures were tightened to slow lending to households and house price increases. LTVs and DTIs have been lowered to 40 percent for financial institutions; with larger reductions for borrowers with multiple mortgages and in regions where speculative buying is driving up prices.

- Corporate restructuring progressed in the shipbuilding and shipping industries. In these sectors leverage fell dramatically owing to debt restructuring and capital injections. The state-owned policy banks, which are the main creditors of some of the firms in the vulnerable sectors, were recapitalized.
- A supplementary budget of KRW of 11 trillion (0.7 percent of GDP) was approved in July 2017. It included additional transfers to the most vulnerable (e.g., elderly, unemployed) as well as additional spending on childcare benefits. Welfare spending was expanded in the 2018 budget. A tax revision bill with measures to make the tax system more progressive was approved.



REPUBLIC OF KOREA

STAFF REPORT FOR THE 2017 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

January 3, 2018

Prepared By

Asia and Pacific Department

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STATISTICAL ISSUES	5

FUND RELATIONS

(As of November 30, 2017)

Membership Status: Joined August 26, 1955; Article VIII

General Resources Account

	SDR Million	Percent Quota
Quota	8,582.70	100.00
Fund holdings of currency (exchange rate)	7,860.21	91.58
Reserve tranche position	722.49	8.42
Lending to the Fund		
New arrangements to borrow	409.50	

SDR Department

	SDR Million	Percent Allocation
Net cumulative allocation	2,404.45	100.00
Holdings	2,313.99	96.24

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 Fund¹

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

	2017	2018	2019	2020	2021
Principal	0.0	0.0	0.0	0.0	0.0
Charges/interest	0.0	0.72	0.73	0.73	0.73
Total	0.0	0.72	0.73	0.73	0.73

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 is classified as "free floating" de jure. It has been classified de facto 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. The Financial System Stability Assessment (FSSA) report for the 2013 assessment has been published (Country Report No. 14/126) and is available on the web at:

<http://www.imf.org/external/pubs/cat/longres.aspx?sk=41569.0>

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 December 11, 2017

I. Assessment of Data Adequacy for Surveillance
<p>General: Data provision is adequate for surveillance.</p>
<p>National Accounts: The overall structure of the national accounts follows the recommendations of the 2008 <i>System of National Accounts</i>. 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.</p>
<p>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 every five years with a plan to move to a three-year update cycle; currently, expenditure weights are derived from the 2010 <i>Household Income and Expenditure Survey</i>. 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.</p>
<p>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.</p>
<p>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 based on <i>GFSM 2001</i>. The Korean authorities resumed reporting consolidated GFS data on the general government for publication in the 2015 <i>Government Finance Statistics Yearbook (GFSY)</i> which include general government operations and a full balance sheet. The general government data</p>

are compiled with significant lags (the latest available data are for 2015), mainly due to the lack in timely source data for the local governments. While high frequency data for central government operations are disseminated under the SDDS, these data are not yet reported for inclusion in the *International Financial Statistics (IFS)*.

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*. 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 with the exception of monetary gold, which is revalued on a semi-annual basis. The BOK reports monetary data for the central bank and other depository corporations using the standardized report forms (SRFs) The BOK does not report data for other financial corporations.

Korea regularly reported *Financial Soundness Indicators (FSIs)* to the IMF for dissemination on its website. Quarterly FSI data and metadata are available to the public through the IMF's website at: <http://fsi/FSIHome.aspx#Country>. Dissemination of the 2015-16 data has been delayed due to concerns about the quality of the data reported. A set of data revisions intended to correct the discrepancies has been received for 2015, and 2016 data are expected to be provided shortly. Going forward, the Korean authorities should shift to more timely provision of quarterly FSI data to the Fund with a time lag in line with the average in advanced G20 economies of no more than 4 months.

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 adopted the BPM6 in March 2014.

The quality of the quarterly external debt statistics, including periodicity and timeliness, have been improving since 2006. 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. However, some BOP and IIP data lack consistency.

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 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 December 12, 2017)

	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	Data Quality – Accuracy and Reliability ⁹
Exchange Rates	12/11/2016	12/11/2016	D	D	D		
International Reserve Assets and Reserve Liabilities of the Monetary Authorities ¹	Oct. 2017	Nov. 2017	M	M	M		
Reserve/Base Money	Sep. 2017	Dec. 2017	M	M	M	O, O, O, LO	O, O, O, O, O
Broad Money	Oct. 2017	Dec. 2017	M	M	M		
Central Bank Balance Sheet	Oct. 2017	Dec. 2017	M	M	M		
Consolidated Balance Sheet of the Banking System	Oct. 2017	Dec. 2017	M	M	M		
Interest Rates ²	12/11/2017	12/11/2017	D	D	D		
Consumer Price Index	Nov. 2017	Dec. 2017	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	Oct. 2017	Dec. 2017	M	M	M		
Stocks of Central Government and Central Government-Guaranteed Debt ⁵	Oct. 2017	Dec. 2017	M	M	M		
External Current Account Balance	Q3/2017	Dec. 2017	M	M	M	O, LO, LO, LO	O, O, O, O, O
Exports and Imports of Goods and Services	Oct. 2017	Dec. 2017	M	M	M		
GDP/GNP	Q3 2017	Nov. 2017	Q	Q	Q	O, O, O, O	O, O, LO, O, LO
Gross External Debt	Oct. 2017	Dec. 2017	Q	Q	Q		
International Investment Position ⁶	Q3 2017	Nov. 2017	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.

**Statement by Heenam Choi, Executive Director for Republic of Korea,
Joong Beom Shin, Senior Advisor to Executive Director,
and Gwibeom Kim, Advisor to Executive Director
January 17, 2018**

The Korean economy has performed well and gained renewed momentum despite geopolitical tensions. Average growth has returned to 3 percent levels in 3 years and is expected to maintain these levels throughout the year. The new government is pursuing a paradigm shift to tackle the structural problems of low growth and polarization while laying the foundations for sustained growth. As highlighted in the recent '2018 Economic Policy Direction,' the three pillars of economic policy directions are: creating jobs and improving income, accelerating growth through innovation, and promoting fairness. The overarching goal is to improve the quality of life so that it better reflects the income level of per capita GDP US 30,000 dollars this year.

LATEST ECONOMIC DEVELOPMENT AND OUTLOOK

Growth has picked up significantly since the second half of last year. The Korean economy is estimated to grow 3.2 percent in 2017 as the recovery continues, centered on construction and facility investment which are boosted by robust global IT demand. Growth recovered significantly from the second half of 2017, when political turmoil and uncertainties subsided and the new government took office. In the third quarter of 2017, the quarter-on-quarter growth was the highest in seven years, 1.5 percent, thanks to the cyclical global economic upturn and the effects of the supplementary budget.

Going forward, growth momentum will continue in 2018. With the hosting of the Pyeongchang Winter Olympics in February and as the effect of the new government's policies such as minimum wage increase and further job-creation materializes, domestic consumption will increasingly contribute to growth. Thus, the 2018 growth rate is projected to be 3.0 percent, broadly in line with staff's forecast.

Meanwhile, inflation is expected to remain within the Bank of Korea's target of 2 percent. In 2017, the consumer price index stabilized at 1.9 percent despite rising prices of agriculture and livestock products caused by abnormal temperatures, avian influenza, and higher oil prices. Consumer prices in 2018 are expected to be 1.7 percent which is lower than that of the previous year, as oil price rise moderates and prices for agricultural products stabilize.

RISK ASSESSMENT

The authorities agree with staff's assessment that the risk is balanced in the short term. For the first time since the global financial crisis, global economic growth is expected to tilt upward for the second consecutive year, which will have a positive impact on the Korean economy. However, the interest burden of households and corporations may increase in accordance with the normalization of monetary policy in major central banks and spread of protectionism can hamper global trade. Staff viewed that the recent geopolitical tension would not affect the fundamentals of the Korean economy, given the resilience of its financial market.

FISCAL POLICY

Fiscal policy continues to remain expansionary, as suggested by staff. The authorities have been implementing supplementary budgets for the past three years, including 2017. The most notable was the 2018 budget passed in the Parliament last December which was increased by

7.1 percent. This exceeded the growth rate of last year, the largest increase since 2010 and was significantly higher than the nominal GDP growth projection of 4.8 percent. In terms of composition, the budgets for education, health, welfare and labor were prominent with more than 11 percent of growth, which support the priorities of the new government's economic policy. To this end, the taxation policy has also been adjusted to support job creation. For instance, tax incentive to promote employment is introduced to expand tax credit when employing youth as regular workers. Start-ups and SMEs launched by the youth are exempted from corporate income tax for 5 years.

The authorities have different views on the fiscal stance. They understand that Korea's fiscal balance is assessed as surplus according to the IMF criteria. However, once social security funds—including national pension savings, which take up a significant portion of the surplus (around 2.5 percent of GDP) and are subject to disbursement in the future, are factored out, overall fiscal balance has been negative for decades. This bears further burden on public debt. This is because Korea's social security funds still stand at the nascent stage where pension receipts far exceed the disbursement. In addition, considering the huge need to prepare for the welfare needs of the rapidly aging population, careful management would be inevitable to prevent a public debt spiral in the future. The Korean government is carrying out fiscal reform plans for fiscal sustainability while implementing more proactive fiscal policies.

MONETARY POLICY AND FINANCIAL SECTOR

In line with staff's recommendation, the authorities have maintained its accommodative monetary policy stance. As inflationary pressures are not projected to be significant, the monetary policy of 2018 is still likely to be accommodative. The Bank of Korea did raise the base rate by 0.25 percent point to 1.5 percent at the end of last November, but only as a preemptive measure considering domestic household and corporate debt burden due to normalization of the global interest rate.

The authorities also agree with staff's assessment that the overall financial system remains sound. Although household debt remains high, it is being managed well through recently intensified macro-prudential measures including lower loan-to-value (LTV) and debt-to-income (DTI) ratios in tandem with the measures to stabilize the housing market. With these measures, household debt growth is expected to slow down gradually in 2018.

EXTERNAL SECTOR

Current account surplus has continued to show a downward trend. It shrunk in 2017 mostly due to rising commodity prices and a decrease in foreign tourists. The authorities predicted that the current account surplus would continue to decline in 2018 with the recovery in consumption and solid investment, combined with rising oil prices. They also highlighted that the Korean won was the most appreciated currency among major Asian peers in 2017. According to the BIS's statistics, the average REER from January to November was appreciated by 2.9 percent above the 2016 average, and by 2.6 percent in nominal terms. This was largely driven by an appreciation of the won against the dollar by 12.8 percent during the whole of last year.

The authorities expressed strong reservations about the external sector assessment. They indicated that the preliminary assessment of 2017 does not adequately reflect the changes made throughout the year. They also emphasized that the EBA methodology should be refined, measurement issues addressed, and country specific factors sufficiently incorporated. With Korea's population aging fastest, OECD predicts that Korea will be the most aged country in the world in 2075. Korea need to prepare for future reunification as well, which would require

a large amount of resources as past unification cases throughout the world has revealed. Also, as staff mentioned in the staff report and the selected issues paper, the rapid integration of Korea into global value chains has accounted for a significant portion of the CA surplus. Besides, the temporary effect of the super cycle in semiconductor—a major export item for Korea—is hard to ignore. The authorities noted these factors are all worth considering as factors specific to Korea. In addition, merchanting, global processing, and mandatory pension savings need to be considered as country specific factors as in the case for other countries' External Sector Assessments. The authorities anticipated that the planned revamping of the external assessment would lead to more rigorous, even-handed, and candid assessments in the future.

Another concern lies in the staff's view on the macro-prudential measures—a levy on non-deposit foreign currency liabilities and a leverage cap on FX derivatives. The authorities view that these prudential regulations helped prevent excessive build-up of short-term debt and lengthen the maturity structure of debt. These measures were not residence-based and never intended to limit the capital flows, just aiming to reduce the systemic risks in the financial market, thus they clearly need to be classified as MPM under the Fund's Institutional View. Furthermore, the authorities reiterated the importance of the appropriate application of the Fund's policy framework on this issue¹ and urge staff to take a more even-handed approach.

LABOR MARKET AND LONG-TERM CHALLENGES

The authorities broadly shared the view with the staff on labor market policies. From a mid to long-term perspective, they plan to actively support the expansion of youth employment and women's participation in economic activities in response to the population onus, which would weigh on the economy down the road.

However, the temporary gap in labor market needs to be filled. The next five years is the time when the so-called “echo-generation”—the children of the baby boomers after the Korean War—enter the labor market in Korea, which makes the labor market much tighter for new entrants. Therefore, the expansion of employment in the public sector could act as a buffer to resolve the problem of youth unemployment that may deteriorate. Furthermore, public employment in much needed areas such as the police force and firefighters does not crowd out private sector jobs, especially given that Korea's public employment accounts only for 8 percent of total, well below the OECD average of 21 percent. Rather, it would help prevent the hysteretic phenomenon of labor— productivity decline as youth unemployment continues to be neglected.

The authorities also welcomed a positive assessment of 2018 minimum wage increase. They expect that rise in minimum wage will be a starting point of a virtuous cycle in which the augmented income conditions lead to an increase in consumption and production. More importantly, the minimum wage adjustment at the current price level is expected to help address income polarization without incurring inflation pressure.

Finally, the Korean authorities would like to express their appreciation to the IMF mission team for the constructive discussions and policy dialogue during the 2017 Article IV consultation.

¹ The board paper (Increasing Resilience to Large and Volatile Capital Flows—The Role of Macroprudential Policies, www.imf.org) emphasized, in para 48, that “there may be cases where an MPM that aims to limit the build-up of systemic risk stemming from capital flows could be misclassified as a CFM only because it could directly or indirectly limit the scale or influence the composition of capital flows, even if it is not designed to do so.”