

IMF Country Report No. 25/41

# **REPUBLIC OF KOREA**

February 2025

## 2024 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 2024 Article IV consultation with the 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 February 5, 2025 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 February 5, 2025, following discussions that ended on January 6, 2025, 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 January 21, 2025.
- An Informational Annex prepared by the IMF staff.
- A Statement by the Executive Director for the Republic of Korea.

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

Selected Issues

The IMF's transparency policy allows for the deletion of market-sensitive information and premature disclosure of the authorities' policy intentions in published staff reports and other documents.

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### International Monetary Fund Washington, D.C.



## IMF Executive Board Concludes 2024 Article IV Consultation with Republic of Korea

#### FOR IMMEDIATE RELEASE

**Washington, DC** – **February 7, 2025:** On February 5, 2025, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation<sup>1</sup> with the Republic of Korea.

Strong economic fundamentals and sound macroeconomic policies have helped the Korean economy navigate through multiple shocks in recent years. Economic growth has recovered from a sharp slowdown in 2023, inflation has reached the target, and financial stability risks have decreased. The authorities' swift policy responses to contain inflation and financial stability risks, have contributed to stabilize the economy and reduce vulnerabilities.

The Korean economy is expected to be in broad balance in 2025, with growth reaching potential and inflation near target. Real GDP growth is estimated to have reached 2.2 percent in 2024, supported by strong exports despite relatively weak domestic demand. As domestic demand strengthens gradually and export growth normalizes, growth is expected to moderate toward the trend of about 2 percent in 2025. Inflation declined to 1.9 percent in December 2024, reflecting the unwinding of global supply chain frictions, lower global oil prices, and the restrictive monetary policy setting. It is projected to stay close to the Bank of Korea's target of 2 percent in 2025 as output gap closes. The current account surplus significantly improved in 2024 driven by recovering global semiconductor demand. It is expected to normalize in 2025 as export growth moderates and import growth picks up in light of strengthening domestic demand.

Uncertainty around the outlook remains high and risks are tilted to the downside. Downside risks have increased amid high uncertainty from policy shifts in major trading partners, recent domestic political developments, softening global semiconductor demand, higher global commodity price volatility, and intensification of geopolitical conflicts.

<sup>&</sup>lt;sup>1</sup> Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board.

#### **Executive Board Assessment<sup>2</sup>**

Executive Directors agreed with the thrust of the staff appraisal. They commended the authorities for their prompt and decisive policy responses to contain inflation and financial stability risks. Directors noted that downside risks have increased amid heightened uncertainty from policy shifts in major trading partners and recent domestic political developments. They concurred that near-term policies should focus on rebuilding buffers and preserving macroeconomic stability. Directors underscored that advancing structural reforms will be key to boost the growth potential and enhance resilience against long-term challenges.

Directors welcomed the ongoing normalization of monetary policy and agreed that monetary policy should remain agile and clearly communicated going forward. They suggested that foreign exchange interventions should remain limited to preventing disorderly market conditions.

Directors supported the planned fiscal consolidation in the 2025 budget. They highlighted that meeting long-term aging-related spending in a fiscally sustainable way will require a more ambitious medium-term consolidation. Directors encouraged expediting fiscal reforms to address aging-related spending pressures, including pension reforms, adopting a fiscal rule, and increasing revenue mobilization and expenditure rationalization, including of energy subsidies. Additional support to the vulnerable could be considered if downside risks materialize.

Noting that financial stability risks remain manageable, Directors recommended closely monitoring and standing ready to act proactively to address financial vulnerabilities in the real estate sector, including related to project financing and asset quality in Non-Bank Financial Institutions. The authorities should stand ready to further tighten macroprudential policies, complemented with measures to improve housing supply to contain housing market risks.

Directors called for comprehensive reforms to boost growth potential. Noting the declining labor force and rapid aging as key challenges, they recommended improving youth income, increasing female labor force participation, and attracting foreign talent. Directors welcomed the recently introduced FX and capital market reforms and encouraged the authorities to continue efforts to improve capital allocation by strengthening the resilience of financial institutions and reducing risks from private debt. They also suggested improving allocative efficiency in services and SMEs, increasing labor

<sup>&</sup>lt;sup>2</sup> 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.

and product market flexibility, and leveraging the revolution of Artificial Intelligence (AI) to boost productivity.

Directors underscored the importance of reforms to enhance resilience. They recommended boosting innovation, streamlining regulation, diversifying exports and supply chains, and promoting service exports to navigate the evolving global trade landscape. They highlighted the need for targeted policies to prepare for AI adoption and to protect vulnerable groups. Directors welcomed Korea's ambitious climate change mitigation objectives and encouraged aligning climate policies with emission targets.

It is expected that the next Article IV consultation with the Republic of Korea will take place on the standard 12-month cycle.

			Projection	
	2022	2023	2024	2025
Real GDP (percent change)	2.7	1.4	2.2	2.0
Total domestic demand	2.8	1.4	0.8	1.5
Final domestic demand	2.8	1.6	0.9	1.5
Consumption	4.2	1.6	1.3	1.7
Gross fixed investment	-0.2	1.4	0.0	1.0
Stock building 1/	0.5	0.0	-0.7	0.0
Net foreign balance 1/	0.1	0.2	1.2	0.7
Nominal GDP (in trillions of won)	2,324	2,401	2,532	2,640
Saving and investment (in percent of GDP)				
Gross national saving	34.4	34.2	34.5	34.9
Gross domestic investment	33.3	32.3	30.3	31.3
Current account balance	1.4	1.9	4.2	3.6
Prices (percent change)				
CPI inflation (end of period)	5.0	3.2	1.9	2.0
CPI inflation (average)	5.0	3.6	2.3	2.0
Core inflation (average)	3.6	3.4	2.2	2.0
GDP deflator	1.8	1.9	3.1	2.2
Real effective exchange rate	-5.3	2.3		
Frade (percent change)				
Export volume	1.8	1.0	6.2	4.0
Import volume	4.4	-3.9	2.6	2.8
Consolidated central government (in percent of GDP)				
Revenue	25.2	22.5	22.3	22.9
Expenditure	26.7	23.2	22.9	23.2
Net lending (+) / borrowing (-)	-1.5	-0.7	-0.6	-0.3
Overall balance	-2.8	-1.5	-1.5	-1.2
Excluding Social Security Funds	-5.0	-3.6	-3.6	-3.2
Central government debt	44.5	45.5	46.8	48.1
Noney and credit (end of period)				
Overnight call rate	3.4	3.9	3.3	
Three-year AA- corporate bond yield	5.2	3.9	3.3	
M3 growth	4.1	4.2		
Balance of payments (in billions of U.S. dollars)				
Exports, f.o.b.	694.3	645.0	709.9	744.5
Imports, f.o.b.	678.7	611.0	619.8	663.8
Current account balance	25.8	35.5	79.1	68.7
Gross international reserves (end of period) 2/	418.4	415.4	411.1	409.4
In percent of short-term debt (residual maturity)	184.0	214.1	212.4	209.0
External debt				
Total external debt (in percent of GDP)	39.7	36.6	37.3	38.7

#### Table 1. Korea: Selected Economic Indicators 2022 - 2025



### **STAFF REPORT FOR THE 2024 ARTICLE IV CONSULTATION**

January 21, 2025

# **KEY ISSUES**

**Context**. The Korean economy has remained resilient against multiple shocks. Economic growth has recovered, inflation has steadily declined, and financial stability risks have decreased. However, downside risks have increased amid high uncertainty from policy shifts in major trading partners and recent domestic political developments. Key medium-term challenges are to boost the growth potential amidst rapid population aging, and to adapt to shifting trade patterns, transformative technological change, and climate vulnerabilities.

**Key Policy Recommendations**. In the face of heightened uncertainty, rebuilding buffers while preserving macroeconomic stability remains immediate policy priorities. Medium-term policies should focus on boosting growth potential amidst rapid population aging, and adapting to shifting trade patterns, transformative technological change, and climate vulnerabilities.

- Rebuilding buffers and preserving macroeconomic stability. A near-term mix of
  monetary normalization, gradual fiscal consolidation, and targeted financial policies
  would help rebuild buffers and preserve macroeconomic stability. If downside risks
  materialize, some monetary and fiscal accommodation, as well as temporary and
  targeted market stabilization measures could be considered.
- Boosting growth potential. Tackling the declining labor force would require comprehensive reforms aimed at alleviating economic constraints that hold back Korea's fertility rate, increasing female labor force participation, and attracting foreign talent. Strengthening resilience of financial institutions, reducing risks from high private debt, and advancing capital market reforms will improve capital allocation. Enhancing allocative efficiency in services and SMEs, through product and labor market reforms, while leveraging the revolution of Artificial Intelligence (AI) could boost productivity and help counteract adverse effects of aging.
- Building resilience against key long-term challenges. Policy priorities include boosting innovation, diversifying supply chains, and promoting service exports to navigate the evolving global trade landscape. Fiscal reforms are required to create space for aging-related spending needs, including through reforming the pension system and adopting fiscal rules. Targeted policies are needed to prepare for the AI adoption and to protect vulnerable groups. Aligning policy measures with emission targets and expediting transition toward greater use of renewal will help achieve climate goals.

### Approved By Thomas F. Helbling (APD), Daria Zakharova (SPR)

Mission discussions with officials took place in Seoul and Sejong during November 7– 20, 2024, with follow up remote discussions in December and early January 2025 on subsequent political developments and economic implications. The mission team comprised of Rahul Anand (Head), Xin Cindy Xu, Hua Chai, Hyeryoun Kim, and Zexi Sun (all APD) and Diaa Noureldin (RES). Jaewoo Oh (OED) also participated in the meetings. Stella Tam and Madelen Conde Panesso (both APD) provided excellent support from HQ.

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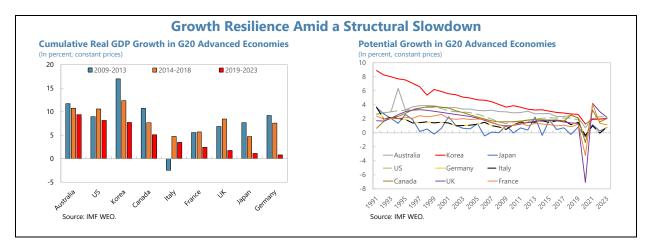
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# CONTEXT

**1. The Korean economy has remained resilient against shocks**. Strong economic fundamentals and sound macroeconomic policies have helped Korea navigate through multiple shocks in recent years, including higher inflation and slower growth post-pandemic, episodes of financial market stress, and domestic housing market adjustment. Since 2023H2, growth has gradually recovered, inflation has steadily declined, and financial stability risks have decreased. The authorities' policies since the last Article IV consultation have been broadly consistent with staff's previous policy recommendations (Annex I).

2. Amid a changing global landscape, Korea needs to expedite reforms to reinvigorate growth and build resilience. In recent decades, Korea's potential growth rate has slowed at a faster pace relative to its peers. Going forward, Korea faces several structural challenges, including from rapid population aging due to low fertility rates, shifting global trade patterns amid geoeconomic fragmentation (GEF), transformative technological innovations notably the adoption of artificial intelligence (AI), and vulnerabilities related to climate change. In response to these challenges, the authorities have come up with a "Dynamic Economy Roadmap" (Annex II), aimed at improving the quality of life and enhancing economic sustainability through structural reforms. However, domestic political uncertainty has increased recently, and advancing structural and other reforms appears to be more challenging.

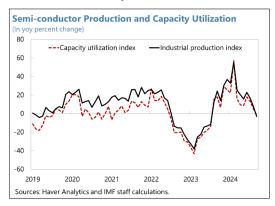


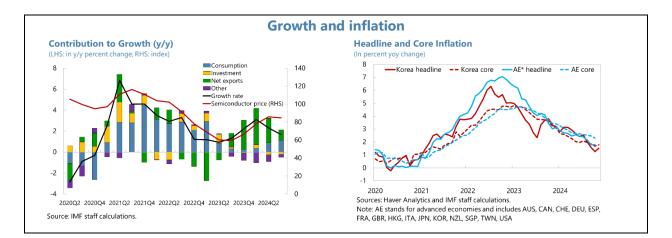
## **RECENT DEVELOPMENTS**

**3. Economic growth has been recovering amid declining inflation**. After expanding by 1.4 percent in 2023, real GDP growth rebounded to 2.7 percent (y/y, seasonally adjusted) in 2024H1 before slowing down to 1.5 percent (y/y) in 2024Q3. The slowdown was due to weaker exports, mainly affected by temporary factors, such as labor strikes in the automobile industry, despite robust

exports of AI-related semiconductors.<sup>1</sup> Domestic demand remained relatively weak, with subdued

private consumption and investment due to inflation-related real income erosion and elevated private sector debt. Growth is estimated to improve in 2024Q4, reaching 2.2 percent in 2024. Headline inflation has declined from 3.6 percent in 2023 (period average) to 1.9 percent (y/y) in December 2024, reflecting the unwinding of global supply chain frictions, lower global oil prices, and the restrictive monetary policy setting. Wage inflation remained moderate as the tight labor market gradually softened. Headline inflation was 2.3 percent in 2024.





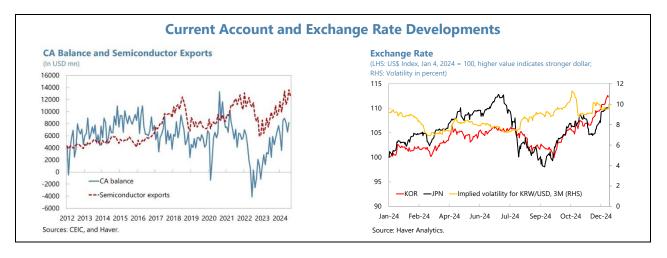
#### 4. The external sector performance has improved, supported by recovering global

**semiconductor demand**. The current account surplus increased substantially from 1.9 percent of GDP in 2023 to 3.5 percent of annual GDP up to 2024Q3, driven by a strong recovery in exports led by the semiconductor sector. Imports growth was slower-than-expected due to subdued domestic demand. The current account (CA) surplus is estimated to reach 4.2 percent of GDP in 2024. The preliminary assessment suggests that the external position in 2024 is broadly in line with the level implied by medium-term fundamentals and desirable policies (Annex III).<sup>2</sup> Changing expectations of monetary policies in major economies, rising geopolitical tensions, strengthening of dollar post-US elections, and domestic political developments have increased volatility in the Korean Won. In 2024, won depreciated against USD by about 12.5 percent, of which about 5.3 percent was recorded in December during domestic political turmoil. The real effective exchange rate depreciated by 1.1 percent (y/y) through September 2024 after appreciating by 2.3 percent in 2023. Amid

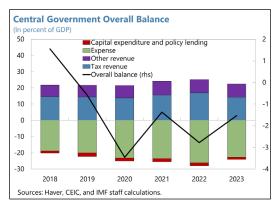
<sup>&</sup>lt;sup>1</sup> Semiconductors account for about 20 percent of Korea's exports.

<sup>&</sup>lt;sup>2</sup> The assessment is preliminary, based on staff's latest projections of the 2024 CA and the 2024 EBA model estimates using the October 2024 WEO database.

depreciation pressures in 2024H1, the authorities intervened in the spot market (with net sales of \$7.4 billion up to 2024Q3) and raised the limit of the FX swap line between the Bank of Korea (BoK) and the National Pension Service.



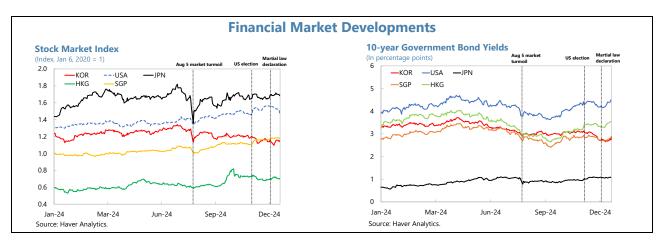
5. Continued tax revenue shortfall is making fiscal consolidation challenging. Despite a significant revenue shortfall, restrained spending led to a contractionary fiscal stance in 2023. Tax revenue continued to underperform in 2024, with an expected shortfall of 29.6 trillion won (1.2 percent of GDP) relative to the budget as per authorities' estimates, driven primarily by the lagged impact of weak corporate profitability in 2023 and reduced property market valuations. As a result, despite the authorities' intention to continue the fiscal consolidation, the fiscal deficit of



the central government is estimated to reach 1.5 percent of GDP in 2024, with the cyclically adjusted primary deficit close to the 2023 level (0.7 percent of GDP), implying a neutral fiscal stance. The authorities addressed the revenue shortfall by utilizing public funds and reducing expenditures, including transfers to local governments, without additional bond issuance.

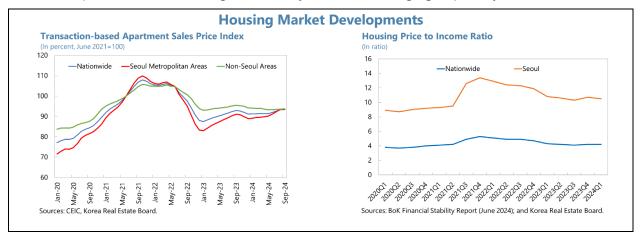
**6. Financial stability risks have decreased, but pockets of vulnerability remain**. The economic recovery, accommodative financial conditions, monetary easing, and targeted financial policy responses have reduced financial stability risks. Overall, financial stability risks appear manageable, given sizable buffers of the financial system, tight prudential requirements, and the authorities' readiness for prompt policy intervention. That said, vulnerability could arise from:

• **Financial market volatility** increased on several occasions over the past year or so, reflecting global factors such as shifting U.S. monetary policy expectations or, more recently, domestic political developments in early December. Stock and bond market reactions were brief and contained during recent political turmoil, as preemptive and prompt policy responses, including



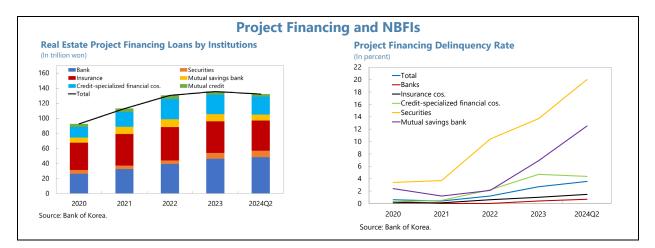
liquidity support (repurchase operations) by the BoK and asset purchase programs (bond and stock market stabilization funds) by the financial authorities, helped stabilize the markets.

• Nationwide, the housing market has stabilized, signs of housing price overvaluation have diminished, and the restructuring of some credit cooperatives and developers that came under stress has proceeded smoothly. However, housing prices in the Seoul Metropolitan Area increased sharply from June to August 2024, given rising demand fueled by declining mortgage rates and binding housing supply constraints. In response, the authorities have implemented a set of prudential and supply side measures (\$\$17\$), and the pace of price appreciation has slowed since September 2024. Housing affordability remains challenging, especially in Seoul.

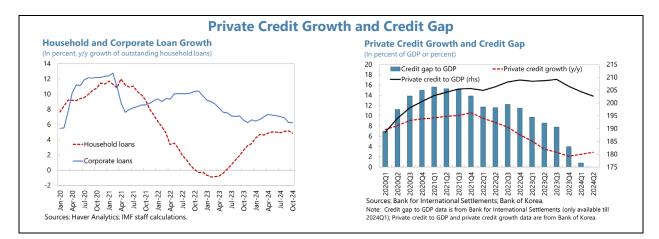


• **Real estate project financing** (PF) related risks that emerged with the rise in policy rates in 2022 have been mitigated by a comprehensive set of soft-landing measures (Text Table 1). Troubled PF, estimated at about KRW 21 trillion (about 9.7 percent of total PF exposures or 0.8 percent of GDP) according to the financial authorities, are being restructured since September 2024, under the guidance of the Financial Services Commission (FSC) and the Financial Supervisory Service (FSS).

The deteriorating asset quality at some non-bank financial institutions (NBFIs), notably their heavy exposure to real estate amid rising PF related NPLs, remains a concern.<sup>3</sup> But systemic risks appear manageable, given capital ratios still significantly exceeding regulatory requirements (Panel Figure 5), the authorities' efforts to facilitate the sale of troubled PF exposures, and the enhanced crisis management framework.<sup>4</sup> The authorities have responded swiftly to address recent liquidity crisis of two e-commerce platforms.



• **Private credit** growth has rebounded in 2024, led by rising housing-related household loans and buoyant corporate credit. The private credit-to-GDP ratio has moderated, though remaining high, and the credit gap has narrowed.



<sup>&</sup>lt;sup>3</sup> See Annex VI in <u>IMF Country Report No. 23/369</u> for a detailed analysis of the linkages among NBFIs, real estate and developers, and the associated risks.

<sup>&</sup>lt;sup>4</sup> See ¶35 in <u>IMF Country Report No. 23/369</u> on the BoK's 2023 reform on the standard lending facility.

<b>Text Table</b>	1. Korea: Key	<b>Project</b>	Financing	Soft-Landing	Measures
	(	Announced	d in May 2024)		

Measures	Policy Description
Improve project evaluation standards	<ul> <li>a) Allow financial companies to evaluate the viability of development projects by considering not only project finance loans and bridge loans but also land mortgage loans, debt guarantee contracts, and funding from MG Community Credit Cooperatives.</li> <li>b) Break down evaluation criteria (currently centered on main project finance loans) into bridge loans and main project finance loans, and for each stage of the project, the risk elements and the degree of risks will be made more specific and subdivided to ensure more effectiveness in viability testing.</li> </ul>
	<ul> <li>c) Break down the viability evaluation ratings into four grading categories (satisfactory, average, attention, and insolvency risk) from the currently available three grading types (satisfactory, average, and deterioration risk).</li> <li>d) Prepare standards for managing the development projects that are considered as unviable as well as</li> </ul>
	a process for resolution and restructuring.
Liquidity support to viable projects	<ul> <li>a) Expand funding supply to funds needed to switch from bridge loans to project finance loans,</li> <li>including additional KRW 5 trn project finance loan guarantees, and a new guarantee program of KRW4 trillion in lending support for non residential projects.</li> </ul>
	b) Expand support for viable projects that require additional funding for increased construction costs, through additional guarantee support and utilizing the project finance normalization fund.
	c) PF fee structure improvement Task Force published policy improvement measures on November 18 as unreasonable practices of fee imposition were confirmed during the on-site inspection (March~April 2024) for 7 financial companies.
Restructuring and Liquidation of unviable projects	<ul> <li>a) Create conditions to facilitate financial companies to pursue restructuring or liquidation on their own in a systematic way. On June 27, 2024, PF lending institutions' consortium agreement was revised.</li> <li>(Projects requesting for a maturity extension for the second time or more will be subject to a higher threshold in securing a consent from the real estate project finance lenders' consortium (consent from two thirds needed previously will be changed to three fourths). When a maturity extension is granted, overdue interest payments will have to be paid in principle.)</li> <li>b) Provide funds and incentives to seek restructuring or liquidation, including through a syndicated loar (up to KRW 5 trn by the banking and insurance sectors), a land purchase program (up to KRW 3 trn by Korea Land and Housing Corporation), auction to acquire assets by Korea Asset Management Corporation (KAMCO), and additional support from KAMCO to MGCCCs (KRW200 bn) and savings banks (KRW200 bn).</li> </ul>
Contain spillovers	<ul> <li>a) Temporary easing of regulations on financial companies, notably the extension of eased liquidity ratio requirement for savings banks and specialized credit finance companies from 2022H2 to end-2024</li> <li>b) Inspect financial companies' provisioning for the restructuring or liquidation of unviable development projects, while continuing to encourage the nonbank sector to bolster capital.</li> <li>c) Effectively implement the market stabilization programs worth a total of KRW94 trillion plus, while closely monitoring situations in financial markets, construction companies, and the nonbank sector.</li> </ul>

## **OUTLOOK AND RISKS**

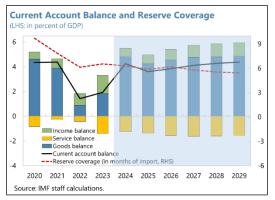
7. Growth is expected to moderate in 2025, and inflation is projected to stay near the

**target**. Exports are likely to remain robust on the back of strong demand for AI-related semiconductor, but the pace of expansion is expected to moderate after the surge in 2024, also reflecting weaker demand for non-AI related chips and EVs, as well as base effects. Private consumption is expected to recover gradually as real incomes improve and monetary policy eases. Investment is expected to pick up gradually facilitated by elastic corporate credit, though constrained by sluggish construction investment and elevated uncertainty of trade policies in major economies.

Real GDP is projected to expand by 2.0 percent in 2025 as the economy converges to its potential growth and closes the small, negative output gap still present in 2024. Average inflation in 2025 is projected to remain at 2 percent, but risks from intensification of geopolitical tensions, and uncertain policies in major economies remain high.

#### 8. The external sector position in 2025 is projected to remain broadly in line with the

estimated 2024 norm (Annex III). For 2025, staff projects exports growth to moderate, as noted above, and import growth to pick up in light of strengthening domestic demand. As a result, the CA surplus is projected to reach 3.6 percent of GDP. In the medium term, it is expected to rise to 4.4 percent of GDP, mostly on account of a gradual increase in primary income from rising Korean investments abroad. While slightly decreased compared to 2023, foreign exchange reserves remain adequate.



**9.** The near-term fiscal impulse will be negative as fiscal consolidation is expected to resume in the short term. The recently-approved 2025 budget envisages a rebound of tax revenues and a modest increase in expenditure. Staff projects the 2025 fiscal deficit to decline to 1.2 percent of GDP, implying a cyclically adjusted primary deficit of 0.3 percent of GDP and a fiscal impulse of -0.4 percent of GDP. Compared to the original proposal, the budget, unilaterally passed by opposition parties, cuts spendings by 0.16 percent of GDP. Fiscal policy is thereafter expected to maintain a broadly neutral stance in the medium term on staff's projections. Debt remains sustainable (Annex IV) with substantial fiscal space. The central government debt-to-GDP ratio is projected to rise from 45.5 percent of GDP in 2023 to 52.0 percent by 2029.<sup>5</sup>

**10. Uncertainty around the outlook remains high and risks are tilted to the downside** (Annex V). A faster-than-anticipated slowdown in major trading partners, softening of AI-related semiconductor demand, and significant policy shifts in major economies could adversely affect exports. Risks of GEF have increased and could further weigh on global trade and investment. Global systemic financial instability, including from a sudden increase in financial market volatility, as experienced in early August 2024, could adversely impact financial conditions and suppress investment. Higher global commodity price volatilities amid intensification of geopolitical conflicts and climate shocks could add to inflationary pressures and higher fiscal burden. Prolonged domestic political instability and uncertainty could weigh on private investment decisions and consumer sentiment, increase financial market volatility, and delay progress of structural reforms.

<sup>&</sup>lt;sup>5</sup> Due to GDP rebasing in 2024, the debt-to-GDP ratio has declined compared to the figure in <u>IMF Country Report No.</u> <u>23/369</u>.

#### **Authorities' Views**

**11.** The authorities broadly shared staff's assessment of economic prospects and risks. The authorities expect export growth to moderate but remain robust in the near term and domestic demand to recover gradually as monetary policy normalizes. They shared staff's views on risks and uncertainty surrounding the baseline from potential economic policy shifts in Korea's major trading partners. The authorities noted that these policy changes could present both opportunities and challenges for growth and could pose both upside and downside risks to inflation. They emphasized that risks from domestic political instability had greatly subsided following the passage of the impeachment motion and expected limited impact on the real economy based on analysis of past episodes of presidential impeachments. In addition, they are closely monitoring market conditions and top economic policy makers are conducting daily meetings to discuss market developments and policy response. They have already deployed market stabilization measures, and vowed to take further proactive actions, if needed, to prevent any resurgence of volatility in financial and FX markets.

**12. The authorities concurred with staff's external sector assessment**. The authorities also project a significant increase in the current account surplus in 2024 and expect a smaller current account surplus in 2025. They saw risks from potential trade policy changes in major trading partners, with uncertain long-term effects depending on policy reactions. They also noted growing uncertainties in the outlook for the semiconductor market. The authorities pointed out that capital flows have remained stable despite bouts of high volatility during times of monetary policy shifts in major economies. They agree with staff that international reserves and high net foreign assets provide adequate buffers against potential shocks and assess the external sector to be broadly in line with the level implied by medium-term fundamentals and desirable policies.

## POLICY DISCUSSION

#### A. Preserving Macroeconomic Stability while Rebuilding Buffers

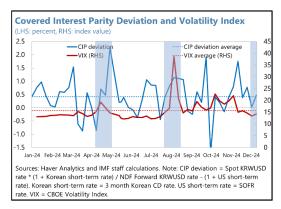
A near-term mix of monetary normalization, exchange rate flexibility, gradual fiscal consolidation, and targeted financial policies would help preserve macroeconomic stability and replenish diminished buffers.

**13. The ongoing monetary policy normalization is welcome**. The BoK appropriately maintained a restrictive monetary stance through much of 2024, given continued upside risks to inflation. However, with progress in disinflation and still weak domestic demand, it started an easing cycle in late 2024, with two consecutive policy rate cuts in October and November. Going forward, monetary policy should remain agile, with the timing and pace of future rate changes aligned with the evolving outlook and balance of risks. Under the baseline, a gradual policy normalization seems appropriate, given still sticky near-term inflation expectations above target (though medium-term inflation expectations are well anchored) and the need to contain housing-related financial stability risks until the effectiveness of new macroprudential policies is firmly established. Nevertheless,

financial stability risks should not unduly constrain monetary policy, and macroprudential policy should be adjusted further as needed. And if downside risks to the outlook materialize, faster easing of monetary policy should be considered. With uncertainty remaining high, clear communication of policy intentions will be important for effectiveness.

#### 14. Foreign exchange interventions (FXI) should remain limited to preventing disorderly

**market conditions**. Exchange rate volatility is not expected to pose significant macro-financial challenges, with a deep and liquid FX market in general. However, during periods of high global financial market uncertainty, herding behavior could lead to temporarily shallow markets (as evidenced by large deviations from covered interest parity, a risk-free no-arbitrage benchmark). Under such conditions, FXI can be an effective instrument to improve market functioning and avoid undue FX volatility. The recently introduced FX market reforms



are expected to deepen FX markets, thus improving the efficiency and resilience of the currency market (Annex VIII).

**15.** The envisaged modest fiscal consolidation and spending priorities are welcome. The resumption of fiscal consolidation in 2025, after an interruption due to revenue shortfalls in 2024, is expected to bring down the managed fiscal deficit (central government fiscal deficit excluding the social security fund) from 3.6 percent of GDP in 2024 to 3.2 percent of GDP in 2025. In the medium-term, the authorities plan for moderate further consolidation through containing the growth of discretionary spending. The medium-term managed fiscal deficit would then decrease below the ceiling of 3 percent of GDP specified in the fiscal rule proposal, which serves as the current administration's implicit fiscal anchor.<sup>6</sup> Nevertheless, more ambitious fiscal consolidation will be needed to create the space to meet significant long-term spending pressures due to rapid population aging while preserving fiscal sustainability (Section C). The spending priorities outlined in the 2025 budget and the medium-term fiscal plan, which focuses on protecting vulnerable groups, addressing demographic challenges, supporting green transition, expanding safety nets, and promoting innovation for long-term growth, are appropriate.

**16.** In case downside risks to growth and inflation materialize, some monetary and fiscal accommodation will be needed. If adverse shocks (Annex V) materialize, triggering further disinflation below target, slowing economic growth, and renewed financial market turmoil, a faster pace of policy rate cuts, additional fiscal support to the vulnerable, and if necessary, temporary and targeted market stabilization measures could be considered (Box I). However, any additional fiscal

<sup>&</sup>lt;sup>6</sup> The fiscal rule proposal, originally submitted to the National Assembly in 2022 and re-submitted in 2024 following the National Assembly elections, is still pending parliamentary approval.

support should take into account long-term sustainability considerations and coordinate with monetary policy in managing demand.

#### **Box 1. Downside Scenarios and Contingent Policies**

**Scenario 1. Continued weakness in domestic demand**. This scenario assumes that the recovery of domestic demand envisioned in the baseline does not materialize in 2025. In addition, a decline in the global demand for semiconductors could further depress income and reduce investment, further weakening domestic demand. Domestic consumption and investment remain weak, putting downward pressures on income growth and employment. As a result, growth slows down and inflation falls below the baseline.

**Scenario 2. Geopolitical risk**. This scenario assumes that an escalation of conflict in the Middle East leads to a surge in oil prices in 2025, resulting in a negative global supply shock. Global headline inflation and headline inflation in Korea increase in 2025 relative to the baseline, reflecting direct and second-round effects from higher oil prices. Monetary policy in major economies tightens relative to baseline. The hit to purchasing power and tighter monetary policy lower global activity and hence demand for Korean exports.

**Scenario 3. Intensification of geo-economic fragmentation.** This scenario assumes that major economies pursue more protectionist policies in 2025, for instance in the form of a new wave of tariffs. This could exacerbate trade tensions, lower investment, reduce market efficiency, and disrupt supply chains, weighing on global growth in the near term and over the medium term. Demand for Korean exports is reduced, worsening Korea's trade balance, employment, and income growth. The recovery of domestic demand progresses slower than under the baseline, exerting downward pressure on inflation. The pace of innovation and technology adoption will also be slowed.

**Policy response**. Under the first two scenarios, given Korea's substantial near-term fiscal space, additional targeted and temporary *fiscal support* should be provided through transfers to vulnerable groups, employment incentives to boost hiring, and a temporary increase in social subsidies to strengthen household purchasing power. Temporary and targeted *financial market stabilization* measures could be deployed in case of disorderly financial market conditions. *Monetary policy* should be eased faster than under the normalization envisaged in the baseline to support domestic demand under Scenario 1. On the other hand, if Scenario 2 materializes, the policy rate cutting cycle might need to be paused or even reversed to contain the resurgence of inflation, depending on the extent of second-round effects and impact on inflation in Korea. Under scenario 3, monetary and fiscal policies should be accommodative to support domestic demand. Boosting innovation and maintaining Korea's export competitiveness remain important. Diversification of export markets and supply chains should be actively pursued.

17. The authorities should continue to monitor pockets of financial vulnerabilities and stand ready to act preemptively. Targeted policy efforts to address financial risks are welcome. Key areas of focus include:

• **Housing market**. Recent measures to limit household debt growth, including tightened lending regulations (notably the stressed Debt Service Ratio, DSR), and eased supply side restrictions (Text table 2) are welcome. If necessary, additional measures, such as an expanded application of DSR rules, an increase in the risk weight of mortgage loans in the banking sector, and a

sectoral countercyclical capital buffer for household lending (in line with 2020 FSAP recommendations), could be considered as monetary policy normalizes further.

- Project financing. The comprehensive package of PF soft-landing measures announced in May 2024 is commendable. The revised standards for evaluating the viability of development projects could help reduce market uncertainty. The expansion of public guarantees and the utilization of syndicate loans would provide the needed liquidity support to viable projects. Restructuring and resolution of problematic projects, including through support from the PF normalization fund, public financial institutions, and temporary relaxation of regulations on NBFIs, should strike a balance between speedy disposal to contain spillovers (including potential financial and fiscal risks) and a market-driven restructuring to reduce moral hazard.
- **Market stabilization measures**. The authorities have resorted to measures such as asset purchase and liquidity provision to limit the economic and financial fallout from global and domestic shocks, including from the PF-related market stress in October 2022 and the political turmoil in December 2024. Such measures, while useful as contingent tools against significant financial stress triggered by market turmoil, should remain temporary and targeted. They should be deactivated as soon as risks of financial stress decline.

	(Announced in 2024)
Measures	Description
Implement stressed DSR	Phase I: From February 26 to August 31, 2024, an additional stress rate of 0.38 percent will be applied to mortgage loans from banks. Accordingly, the maximum amount a borrower can take out for a mortgage loan will be lowered by a two to four percent depending on the mortgage payment schedule.
	Phase II: From September 1, 2024, an additional stress rate of 0.75 percent will be applied to credit and mortgage loans issued by banks and mortgage loans issued by nonbanks. Mortgage loans for houses in the Seoul metropolitan area will be subject to an increased stress rate of 1.2 percent, instead of 0.75 percent.
	Phase III: From July 2025, an additional stress rate of 1.5 percent (subject to change) will be applied to all types of household loans that are subject to the DSR rule.
Expand housing supply	Speed up existing projects to build 217,000 houses in Seoul and satellite cities and come up with new projects for additional supply of at least 210,000 homes. There were 8 million homes in Seoul and the surrounding Gyeonggi province in 2023.
	Loosen regulations on reconstruction projects and simplify the process; Release "green belt" areas near Seoul for new projects; Raise the limit on loan guarantees for builders to expand liquidity support; Increase the supply of public housing for rental in Seoul.

#### Authorities' Views

**18.** The BoK concurred with the need for a flexible and agile monetary policy that can respond to changing conditions. The BoK continues to operate monetary policy with an eye on inflation and growth, and will be closely monitoring developments in household debt. In light of stabilization of housing prices in the Seoul Metropolitan Area following tightening of prudential

measures, the BoK assesses that housing market instability risks have decreased, but the high level of household debt remains a concern. They shared staff's views that financial stability risks should not overly constrain monetary policy but emphasized that monetary policy should also pay attention to financial stability. They expect a gradual process of policy rate normalization in the baseline, balancing tradeoffs between inflation, growth, and financial stability. A recent BoK staff's working paper estimates the real neutral rate range to be -0.2 to 1.3 percent as of 2024Q1. The BoK shared staff's view that an accommodative monetary policy may be needed if downside risks materialize.

**19. The authorities remain committed to exchange rate flexibility**. They stressed that FXI is conducted only during episodes of excessive volatility to limit herding behavior and is not intended to target any particular exchange rate level. They assess that the recent FX market reforms have led to higher trading volumes without increasing market volatility and will result in the further deepening of the FX market. They saw the market as sufficiently deep to deal with the risks from potentially higher capital flows following Korea's recent inclusion in the WGBI index.

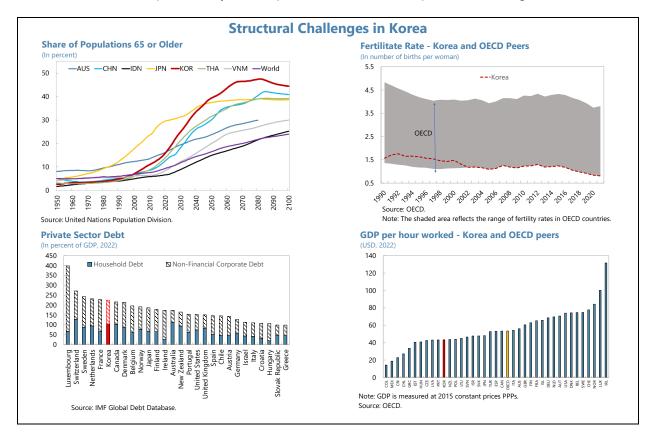
**20.** The authorities reaffirmed their commitment to pursuing fiscal consolidation. They concurred with the need to resume fiscal consolidation in 2025, as outlined in the budget. In case downside risks materialize including from economic policy shifts in major economies and domestic political developments, they emphasized that, as the implementation of the 2025 budget is still underway, the immediate priority is to ensure the effective and faithful execution of the 2025 budget approved by the National Assembly. They reaffirmed their commitments to formulating appropriate policy measures to address evolving global trade dynamics and safeguard the livelihoods of the people. The authorities recognized the importance of creating fiscal space to address aging-related long-term spending pressures, particularly by containing the growth of discretionary spending.

**21.** The authorities concurred with staff's assessment of financial risks and are taking measures to address key pockets of vulnerabilities. The authorities noted that recent measures have effectively contained housing market instability risks, but they remained cautious about the high level of household debt. In line with staff's recommendations, they have planned additional prudential measures, including an expanded application of the DSR rules, in case housing prices reaccelerate. The authorities have implemented measures to assist a soft-landing in project financing, including the new classification standard for project viability, expanded liquidity support to viable projects, and the successful start of sale of unviable projects. They stressed that the PF restructuring process is market-driven, led by the private sector, which would help limit moral hazard concerns and fiscal risks. The authorities agreed with the need to keep market stabilization measures temporary and targeted. They emphasized that the termination of temporary asset purchase programs should be reviewed contingent on financial market conditions.

### **B. Sustaining Growth Amid Structural Transitions**

Structural policies should focus on sustaining growth by addressing key longer-term challenges, such as declining labor force from rapid population aging due to a low fertility rate, potential capital misallocation, and slowing productivity growth. While addressing economic constraints behind low

fertility, increasing female labor force participation, and attracting foreign talents would help meet labor demand in the near term. Reducing private debt and advancing capital market reforms would improve capital allocation to support growth. Enhancing allocative efficiency and leveraging AI revolution would boost productivity and help counteract adverse impacts of declining labor force.



#### Tackling Declining Labor Force

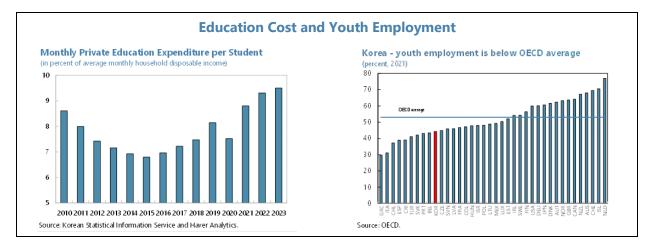
**22. A shrinking labor force poses significant multifaceted challenges to the long-term prospect of the Korean economy**. With the world's lowest fertility rate (0.72 in 2023), Korea's working-age population, which peaked in 2019, is projected to decline to 66 percent of total population by 2030 and 46 percent by 2070, putting considerable strain on labor supply and hence potential growth. The resulting surge in the old-age dependency ratio will put increasing pressure on fiscal sustainability. In addition, aging population will change the savings-investment dynamics, resulting in a longer-term impact on neutral interest rate, inflation, and the working of financial institutions.<sup>7</sup>

23. Comprehensive reforms are needed to alleviate economic constrains that hold back Korea's fertility rate. Korea's low fertility rate is the main driver of rapid population aging. Reversing the trend decline of the fertility rate requires a comprehensive set of structural reforms to alleviate

<sup>&</sup>lt;sup>7</sup> See Annex VI. "Addressing Korea's Declining Labor Force".

economic constraints that discourage marriages, delay childbirth, and prevent young people from having their desired number of children (Annex VI).

- **Reducing costs of raising children**. Korea's high private education spending due to intense competition for admissions into a few elite universities, and high housing prices, particularly in the Seoul Metropolitan Area, where the best education and job opportunities are concentrated, have increased the financial burden on young people, making it hard to start a family and have children. Poor work-life balance and high career opportunity cost for women have also discouraged women from having a child. Making child-raising more affordable by reducing the cost of education and housing and career costs for women, coupled with increasing quality and accessibility of childcare services, remain important to boost fertility.
- Raising income of the youth. Korea's youth employment rate has been significantly below the OECD average due to low youth labor force participation. A large share of youth postpones their careers in order to land jobs in large firms or professional jobs, as reflected by a high rate of NEETs (Neither in Employment nor in Training) for tertiary graduates.<sup>8</sup> The low productivity of the SMEs coupled with labor market duality (the fragmentation of workers into regular and non-regular contracts with different terms of wages, benefits, and job security), offers few high-quality job opportunities outside large corporations. Increasing income prospects of the youth by improving the performance of SMEs and tackling labor market duality is essential to encourage family formation and childbirth. The education system reforms to reduce labor market mismatch will make SME-jobs more attractive and also help reduce education and associated costs.

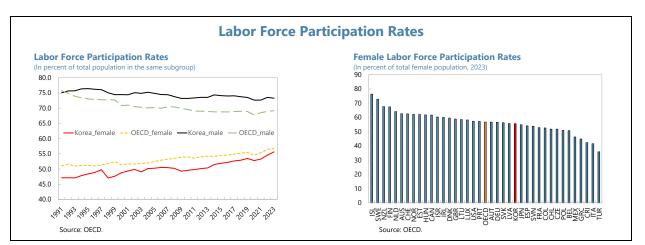


#### 24. Increasing female labor force participation would yield significant near-term benefits.

As increasing fertility will take decades to affect working-age demographics, boosting female labor force participation (FLFP) would be important to mitigate the decline in labor force in the near and

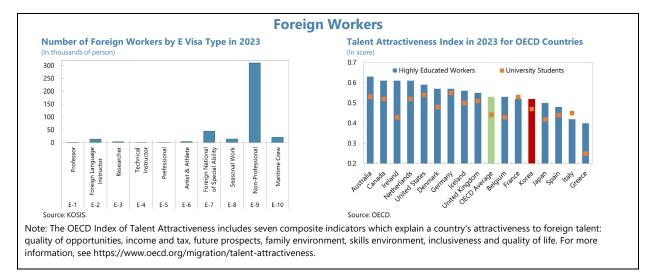
<sup>&</sup>lt;sup>8</sup> According to the Korea Employment Information Service (2022), the NEET share of the 15–29-year-old age group in Korea was estimated at 20.9 percent in 2020, based on OECD standards.

medium term. Substantial efforts have already been made in improving the work environment for women, facilitating a marked rise in FLFP. Despite recent improvements, Korea's FLFP rate is still low compared with OECD peers. Social norms place heavy household and childcare burdens on women, which in conjunction with high labor market rigidities, have discouraged FLFP in Korea. Increasing labor market flexibility by reducing labor market duality, coupled with further incentives to increase the utilization of parental leave and enhanced childcare options, as well as expanding the use of telework and flexible working-time arrangements in workplace, can increase FLFP, raise labor productivity and growth.<sup>9</sup>



**25. Attracting foreign talents would also help ease demographic pressures**. While the number of foreign workers has increased, their share in the labor force is still low compared to other OECD economies, and the majority are low-skilled. The inflow of skilled migrant workers could offset the decline in labor force and enhance productivity by fostering innovation and patenting activity (Bernstein et al., 2022; Mayda, Orefice and Santoni, 2022). Although the government has promoted employing skilled foreign workers by expanding the relevant visa quotas, further efforts are needed to attract qualified foreign talents. Streamlining the transition from the temporary low-skilled labor status (E-9 visa) to the skilled and long-term worker status (E-7 and F-2) could be considered, given that many E-9 holders already possess higher education. Furthermore, it is important to capitalize on Korea's growing appeal to international students by increasing internship and job opportunities and easing immigration norms. Addressing structural challenges that have hindered family formation and female labor force participation, such as high housing and private education costs, inadequate access to quality childcare services, and labor market duality, would also help improve Korea's attractiveness to foreign talent.

<sup>&</sup>lt;sup>9</sup> See Annex XII. Addressing Gender Gaps in the Labor Market in <u>IMF Country Report No. 23/369</u> for a detailed analysis of the productivity and output gains from reducing the gender gap in Korea.



#### Authorities' Views

26. Staff's recommendations to tackle declining labor force are broadly aligned with the priorities identified by the authorities. Declaring low fertility rate as a demographic national emergency, the authorities announced measures through a Presidential Committee to coordinate fertility policies and plan to set up a new Ministry to comprehensively address broad challenges posed by population aging. A recent survey conducted among families have identified work-life balance, burden of childcare, and housing cost as key factors affecting fertility rates. In response, the authorities have shifted policy focus toward promoting a family-friendly working environment and increasing family-related budgetary spending, while also conducting studies on the effectiveness of existing programs. The authorities have also implemented various measures to promote youth employment in SMEs, including "job creation grants". In addition, the Youth Work Opportunity Support Initiative helps young people develop skills and capabilities needed in real-world environments. They have taken steps to attract and retain skilled foreign talents, such as easing visa restrictions, supporting settlement of foreign students, and reviewing overall immigration policies. The authorities stressed that successful labor market reforms remain critical for enhancing Korea's economic sustainability. They are in a close social dialogue through a special committee composed of representatives of workers, employers, and government to address labor market duality and to enhance labor market flexibility.

#### **Enhancing Capital Allocation**

# 27. Continuous efforts are needed to further strengthen the resilience of financial institutions to support the growth potential.

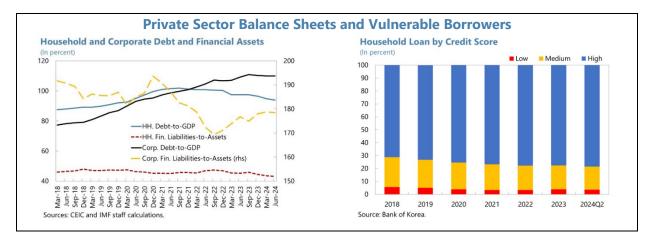
NBFIs. The heavy real estate exposure of some NBFIs remains a concern, given deteriorating
asset quality, weakening profitability, and declining provisions (Panel Figure 5). Measures to
improve asset quality, including through facilitating the sell-off of NPLs by auctions and public
sales, more centralized management of NPLs in MGCCC, increasing loan provisions for

borrowers with multiple debt in savings banks, and introducing a cap on the share of real estate related business loans for mutual financial institutions, are welcome. Further efforts are needed to enhance liquidity preparedness, capital adequacy and provisions of depository NBFIs, to narrow the gap relative to banks in lending regulations, and to enhance the FSS's ability to take prompt supervisory action (in line with 2020 FSAP recommendations). Regulation and supervision of e-commence platforms needs to be strengthened, and the financial authorities' recent legislative proposal to tighten management of the platforms' sales proceeds and enhance their capital requirements are commendable. The authorities' continued monitoring of stressed institutions is appropriate.

• **Banks**. Banks remain sound, though room exists to further enhance their capital and provision ratios, which fall behind some peers (Panel Figure 5). In this regard, the normalization of prudential requirements (Liquidity-Coverage ratio and Loan-Deposit ratio) and the implementation of the countercyclical capital buffer (CCyB) from 0 to 1 percent, and the planned introduction of stressed capital buffers are welcome. Nevertheless, voluntary support to vulnerable borrowers by banks, while not affecting their soundness, could adversely affect profitability. Providing social support through fiscal policy could be more desirable.

28. Recent initiatives to address risks from high levels of private debt are welcome. The private debt-to-GDP ratio in Korea is among the highest in OECD, but systemic risks remain limited due to sizeable high-quality financial assets and a low share of vulnerable borrowers. That said, heavy debt burden and increased interest payment have constrained household consumption and business investment in Korea. Hence, gradual deleveraging would be desirable as it would enable new investment into productive uses, thereby improving capital allocation. In the short run, tightened lending regulations to contain the rise in household debt are appropriate. Over the medium to long term, raising housing supply in Seoul Metropolitan Area (through easing supply side restrictions and more social housing) while also taking into account Korea's projected decline in population, would help reduce housing market imbalances, which largely mirror the evolution of household debt.<sup>10</sup> In addition, enhancing lending regulation and risk monitoring of the leasehold deposit market (Jeonse) would help contain rollover risks of Jeonse contracts, limit potential amplification of house price shocks, and reduce household leverage. On corporate debt, the focus on improving resource allocation by shifting financing toward more-productive sectors seems reasonable. Recent initiatives to facilitate debt restructuring of problematic projects and weak developers are also welcome, which could be complemented with further enhancement of restructuring and insolvency schemes (in line with 2020 FSAP recommendations).

<sup>&</sup>lt;sup>10</sup> See ¶30 and ¶34-35 in <u>Country Report No. 2022/086</u> for analysis on housing supply constraints and policy recommendations.



#### 29. Reforms to enhance stock market efficiency and deepen the FX market are

**encouraging**. The new Corporate Value-Up program aims to address the long-standing "Korea discount" in the stock market to increase Korean firms' access to capital by narrowing the valuation gap (Annex VII). Encouraging companies to disclose their value-up plans would enhance transparency and facilitate communication with investors. The use of tax benefits and investment incentives under the program should be carefully reviewed to ensure a market-driven price discovery. The FX market reforms including opening-up of the onshore market to registered foreign institutions and extension of trading hours will enhance resilience and efficiency by deepening the currency market (Annex VIII). Following these reforms, Korea was included in the WGBI index in October 2024, which would lead to higher capital inflows from a diversified investor base.

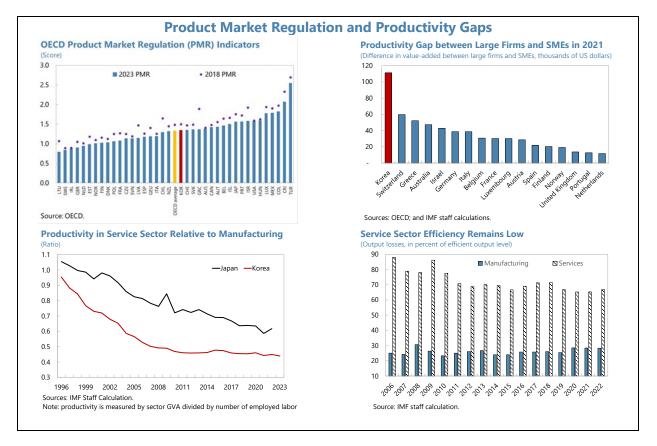
#### Authorities' Views

#### 30. The authorities broadly shared staff's recommendations to enhance capital allocation.

They are encouraging NBFIs to increase capital ratios and have taken measures to enhance provisions of some weak institutions. They are considering new capital requirement ratio under Basel II for savings bank and the risk-based capital regulation for credit card companies. They stressed that some difference in lending regulations relative to banks are necessary to allow depository NBFIs to provide loans to certain vulnerable groups. They are reviewing the neutral level of CCyB and are conducting preparation work on introducing stressed capital buffers for banks. The authorities intended to reduce household leverage over the medium to long term by limiting the growth of household debt to below nominal GDP growth, implementing stronger DSR rule, and increasing housing supply in Seoul Metropolitan Area. On corporate debt, they are focusing on improving capital allocation toward more productive sectors. The authorities welcomed staff's analysis on the capital market reforms, including the corporate value-up program and the FX market reform. They expected the corporate value-up program and the FX market reform to increase accessibility and liquidity of the capital market.

#### **Increasing Productivity**

**31.** More flexible product markets and a lower regulatory burden would help improve the competitiveness of the services sector and SMEs. Productivity in the service sector and SMEs remains low, mainly reflecting inefficient resource allocation within these sectors (Annex IX). While overall product market regulation stringency has improved and is close to the OECD average, there is still room to reduce barriers to trade and investment, state involvement in business operations, and barrier to entry in services. Lowering legal barriers to entry and startup costs and simplifying complex licensing and permit requirements would help ease longstanding bottlenecks to service sector productivity growth. Productivity of SMEs could be boosted by reducing regulatory burden, accelerating the take up of new technology, and increasing their participation in international trade. Instead of providing support solely based on firm size and for the survival of firms, government support for SMEs should be linked to their ability to improve productivity and potential to generate long-term profitability.



#### 32. The adoption of AI holds the potential of significant output and productivity gains

(Panel Figure 9).<sup>11</sup> Korea is at the global forefront in AI adoption, with increasingly more companies and workers actively exploring the use of AI. Adoption rates are higher among larger and younger firms with stronger technological capacities. Under a scenario where AI complements job functions

<sup>&</sup>lt;sup>11</sup> See Selected Issues Paper, "Transforming the Future: The Impact of Artificial Intelligence in Korea", forthcoming.

and increases labor productivity, AI adoption could significantly boost productivity and output, by about 3 percent and 13 percent over next three decades, largely offsetting the estimated negative impact of population aging on output. Moreover, as a top semiconductor producer, Korea is set to benefit from the global AI-boom. It is projected that global AI demand will lead to the doubling of Korean chips exports by 2030.<sup>12</sup> However, productivity and output enhancements are not universal. Firm-level analysis suggests that such effects are significant only in large and mature Korean firms, which could further exacerbate the already-large productivity gaps between large firms and SMEs. Increasing investment in AI innovation and integration, while advancing adequate regulatory frameworks, would help to fully harness AI's potential benefits.

#### Authorities' Views

**33.** The authorities acknowledged the need to increase productivity in services and SMEs and to support AI adoption to bolster potential growth. They have streamlined regulations and fostered key industries in the service sector to enhance productivity and thereby promote exports. They also have a plan to streamline support programs for SMEs by reevaluating and restructuring based on innovation and performance potential. They acknowledged the need for more analysis and better policy preparation to maximize potential gains from the AI adoption. The authorities emphasized that boosting innovation and improving resource allocation are also a key pillar of the recently introduced Dynamic Economy Roadmap (DER).

#### **Unleashing Potential: Reform Scenario**

34. Reform gains from increasing labor force participation, expanding AI adoption, and improving allocative efficiency could help offset the adverse impact of aging on growth potential. Staff estimates that aging is expected to reduce the annual average potential growth by 0.67 percent between 2023 and 2050, assuming labor force participation rates (LFPR) and the income share of labor remain constant. However, the gains from increased LFPR, AI adoption and allocative efficiency improvement could more than offset this decline (Annex X). Frontloading reforms in the next decade would deliver growth gains early, gather public buy-in, build sufficient buffers, and increase fiscal space for adapting to an aging society. Reforms that have already been planned, with well-established social consensus and potential for high output payoffs, could be prioritized.

### C. Building Resilience to Long-Term Challenges

Policies need to focus on building resilience and adapting to a changing domestic and global environment characterized by challenges stemming from intensification of GEF, rapid technological changes including in AI, population aging, and climate change.

<sup>&</sup>lt;sup>12</sup> The impact of AI on productivity, output, and semiconductor exports is still subject to high uncertainty, similar to the past adoption of general-purpose technologies.

#### 35. The Korean economy faces challenges emanating from a confluence of global

**developments**. With exports as the main engine of economic growth, Korea is vulnerable to disruptions in international trade due to intensification of GEF and the rise of industrial policies (IPs) worldwide. The rapid advancement of AI presents opportunities for boosting productivity growth but also poses threats of massive labor displacement, which could be exacerbated by labor market rigidity. Climate change has increased the likelihood of extreme weather events that weigh on economic activity, and more concrete measures are needed to meet the authorities' climate goals. Strong and proactive policies would help Korea adapt to these challenges and build resilience.

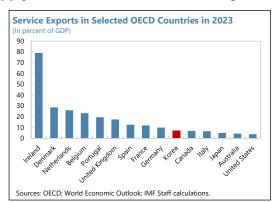
#### 36. Navigating the evolving global trade landscape is key to maintain Korea's position in

**global economy**. GEF, particularly trade wars and technology restrictions imposed by Korea's major trading partners, poses significant challenges to Korean exports and business operations of several overseas production bases. The resurgence of IPs and protectionism in major economies could reduce global demand for Korean exports and intensify competition in Korea's key export industries. While the reconfiguration of global supply chains may provide opportunities to certain sectors in specific markets in the short term, overall downside risks arising from GEF and the increasing use of IPs need to be addressed.<sup>13</sup> Key policy priorities include:

Boosting innovation to maintain the competitiveness of Korea's exports. In addition to improving productivity, keeping Korea's technological advantage is of paramount importance to retain global market share amid intensifying global competition, as investments in some of Korea's key export sectors are increasing worldwide. Policy support should focus on innovation. R&D tax incentives and research grants (for innovative young firms) are effective in incentivizing private sector innovation. Scaling up public research, which is relatively low in Korea compared to some of the world leaders, could help advance fundamental research with strong spillovers to private R&D. Empirical studies show that increasing spending on a mix of these policies by 0.5 percentage points of GDP could raise GDP by up to 2 percent.<sup>14</sup>

#### • Diversification of export items, destinations, and supply chains. Unlike the manufacturing

sector, Korea's service exports have been less competitive compared to other advanced economies. Promoting services that have growing external demand, such as cultural content, manufacturingrelated services and information and communications, as key export items would enable the service sector to become a new growth engine. Diversifying trading partners by expanding trade relationships with a wider range of countries can help to maintain a more resilient trade network. Upgrading existing and



<sup>&</sup>lt;sup>13</sup> See Selected Issues Paper, "Korea and the Changing World Trade Landscape", forthcoming.

<sup>&</sup>lt;sup>14</sup> See the IMF's Fiscal Monitor April 2024, Chapter 2, "<u>Expanding Frontiers: Fiscal Policies for Innovation and</u> <u>Technology Diffusion</u>".

signing new trade agreements would increase the space for the private sector to diversify supply chains and make them more resilient and minimize potential disruptions.

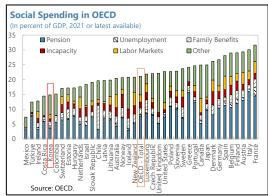
• **Reassess the use of IP**. Like many other countries, Korea has introduced new IP measures, including the K-Chips Act of 2023 and its subsequent expansion and extension, with the aim to maintain competitiveness of strategic sectors (semiconductors, automobiles, etc.). Industrial policies should remain confined to specific objectives where externalities or market failures prevent effective market solutions and, even then, they should minimize trade and investment distortions, be consistent with international obligations, and avoid discriminating between domestic and overseas producers. Instead of industry-specific interventions, the authorities could focus on horizontal (sector-neutral) policies to maintain competitiveness across the economy, which would enhance economic efficiency while avoiding resource waste. It would be beneficial for the authorities to continue with promoting innovation, including through public R&D support, and reducing product and labor market rigidities to bolster productivity (¶31). The authorities have engaged successfully with some major trading partners to mitigate some of the disruptive effects from IPs and should continue these efforts.

**37. Targeted policies are needed to prepare for the AI adoption and to protect vulnerable groups** (Panel Figure 10).<sup>15</sup> Overall, Korea is well positioned in AI preparedness, with leading innovation capacities and advanced digital infrastructure. But there is room for further improvements in regulatory frameworks and labor market policies. While AI may bring productivity gains (¶32), it could also pose challenges to the labor market. Staff estimates that about half of jobs are highly exposed to AI. While some may benefit from AI adoption, others could be replaced by it. Women, young, high-skill and high-income groups are more likely to be adversely affected by AI, while at the same time, may benefit more from AI adoption. High labor market duality poses significant challenges for workers to switch jobs, especially for elderly groups. A more flexible labor market, targeted training and reskilling programs (including sector-based training and apprenticeships), and a stronger social safety net (through expanding unemployment insurance to more non-regular

workers and the self-employed and enhancing access and generosity of social assistance programs) would help prepare the society, especially vulnerable groups, for the AI transition.<sup>16</sup> Social Spending in OECD

# 38. Comprehensive fiscal reforms are needed to preserve fiscal space for meeting long-term

**challenges**. Though Korea has substantial fiscal space at the moment, it is likely to shrink considerably over time and the public debt-to-GDP ratio is projected to rise, severely constraining resources to tackle agingrelated challenges in a fiscally sustainable way. Driven



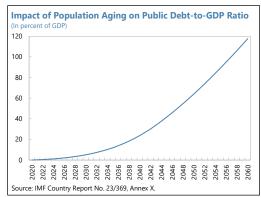
<sup>15</sup> See Selected Issues Paper, "Transforming the Future: The Impact of Artificial Intelligence in Korea", forthcoming.

<sup>&</sup>lt;sup>16</sup> See IMF Staff Discussion Note SDN/2024/002, *Broadening the Gains from Generative AI: The Role of Fiscal Policies*.

by growing demographic challenges, Korea's public social spending has risen by more than 6 percent of GDP in the past decade, far outpacing the OECD average increase of less than 1 percent. However, its spending level remains below the OECD average, particularly in old age, incapacity, health, and family, where spending pressures are expected to intensify. The authorities intend to increase the share of spending on health, welfare, and employment in the medium term, which will require preserving fiscal space. Adopting a fiscal rule and advancing pension reforms in a timely manner remain critical to scaling up spending while safeguarding fiscal sustainability. Mobilizing revenues and prioritizing expenditures would also help create the fiscal space needed to meet long-term spending needs. The authorities' efforts to enhance revenue forecasting accuracy are welcome and would help strengthen fiscal credibility and budget planning.

• Pension reform. Given rapid aging, the main pension scheme, the National Pension Service

(NPS), is expected to go into deficit in 2041 and deplete its assets by 2056 according to government estimates. This will place upward pressure on public debt levels and considerably reduce fiscal space. The recent pension reform plan proposes to increase the contribution rate from 9 percent to 13 percent, increase the income replacement rate from 40 percent to 42 percent, and introduce an automatic pension payout adjustment mechanism based on demographic



trends and the financial situation of the pension fund.<sup>17</sup> Other major initiatives include adjusting the investment strategies of the NPS to increase returns, raising the non-contributory basic pension for elderly people under poverty, and increasing credits for childbirth and military. The new proposal is a welcome step in advancing pension reforms, with the combined effects of these measures projected to delay the asset depletion year to 2088 per authorities' estimates. Raising contribution rates are crucial for improving the benefit adequacy and fiscal sustainability, and so is further raising the retirement age. The effects of increasing replacement rates and introducing an automatic adjustment mechanism should be evaluated carefully to strike a balance between the pension fund's long-term sustainability and the adequacy and equity of pension benefits.<sup>18</sup> Adopting new investment strategies can boost returns, but it is essential to closely manage market and liquidity risks while keeping associated administrative costs under control.

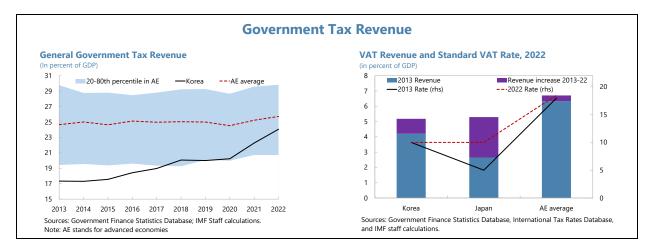
• **Fiscal rule**. Timely implementation of the fiscal rule, which has been resubmitted to the National Assembly after the general election in April 2024, is crucial to anchoring public finances and strengthening public financial management by safeguarding budgetary independence and

<sup>&</sup>lt;sup>17</sup> The pension reform proposal, released in September 2024, is under consideration at the National Assembly.

<sup>&</sup>lt;sup>18</sup> See Annex X. Pension Reforms Options to Cope with Rapid Aging in <u>IMF Country Report No. 23/369</u> and <u>IMF</u> <u>Working Paper 24/223</u> "Parametric Pension Reform Options in Korea" for a detailed analysis of pension reform options in Korea.

enhancing fiscal transparency. While the parametric targets are broadly prudent, given that the authorities' projected deficits are close to the deficit ceiling proposed, preserving counter-cyclical policy space and an independent fiscal oversight on the compliance of the rule should be considered.<sup>19</sup>

• **Revenue mobilization**. Tax revenue of the general government has increased by 6 percent of GDP over the past decade (2013-2022), driven by growth in income tax collections. However, it has remained lower than the AE average mainly because of the low value-added tax (VAT) collections. The VAT efficiency and VAT base (as a percent of GDP) in Korea are comparable to its peers; however, the VAT rate at 10 percent remains low compared to the AE average of 18.5 percent. Also, the VAT expenditure in Korea has increased when it has decreased in other AEs. Increasing the VAT rate and rationalizing VAT exemptions could be considered. Similarly, increases in personal income tax expenditures should be reviewed and, if necessary, streamlined.



• Spending prioritization. Public expenditure remains well above pre-pandemic levels despite a decline in 2023. Subsidies on food and energy should be reconsidered as inflation recedes. With the output nearing its potential, the authorities could consider scaling back support to local governments and businesses, including reassessing the support to SMEs. Staff welcomes the measures being taken and planned to address this issue, including reassessing projects based on evolving social and economic conditions, reducing support for inefficient projects, providing stronger incentives for firms to expand, consolidating similar subsidy programs, and fostering inter-ministerial collaboration. Aligning domestic energy prices more closely with international commodity prices and terminating fuel tax cuts will reduce the debt burden on the public sector and mitigate negative externalities on climate.

**39. Concrete policy measures are needed to reach Korea's climate goals**. While being one of the world's largest greenhouse gases (GHGs) emitters, Korea is also vulnerable to adverse impacts from climate change, including rising risks of flooding, droughts, and heatwaves, that bear significant

<sup>&</sup>lt;sup>19</sup> See ¶42 in <u>IMF Country Report No. 23/369</u> for a detailed discussion of the fiscal rule in Korea.

economic consequences.<sup>20</sup> The 1<sup>st</sup> Framework Plan for Carbon Neutrality and Green Growth was released in 2023, which included high-level guidance and emission targets and trajectories by sector up to 2030. While constituting a major step forward, the Framework Plan needs to be complemented by concrete policies to reach Korea's climate goals of 40 percent emission reduction relative to 2018 levels and to reach carbon neutrality by 2050. Korea's share of renewable energy remains low for its income level. It is important to align the K-ETS' emission caps, price floor, and share of auctioned allowance with the emission targets in phase IV (2026-2030). Other policy options include reinforcing carbon pricing with feebates in emissions-intensive sectors and increasing and expanding the coal tax to expedite transition toward greater use of renewables in the energy mix.<sup>21</sup>

#### 40. The newly released Dynamic Economy Roadmap (DER) lays out the authorities'

**intentions to address these structural challenges (Annex II)**. Acknowledgement of challenges facing the Korean economy and a detailed action plan to address them is welcome. Going forward it's important to spell out the details of each policy measure and expedite their implementation.

#### Authorities' Views

# 41. The authorities broadly shared staff's view that maintaining competitiveness and promoting service exports are important to adapt to the changing global trade landscape.

They identified manufacturing-related high-end services as the most promising sector for future growth and agree with the need to further diversify supply chains and export markets. The authorities agree that boosting innovation through R&D remain important to keep Korean exports competitive. They stressed that policy shifts and reversals in major economies going forward could lead to further changes in the global trade landscape, with both positive and negative effects on Korea. The authorities stressed that their active support for selected high-tech industries is aimed at mitigating negative impact on private investment due to heightened global policy uncertainty, that the support measures do not discriminate against foreign producers, and that these policies are designed with considerations for international norms including WTO compliance.

**42. The authorities welcomed staff's analysis on the AI impact**. They acknowledged the need for further preparations to adapt to the AI transition and commended staff's analytical work in raising awareness on this topic. They expressed strong interest in continued joint research on this and other important structural issues.

**43. Given increasing aging-related spending needs, the authorities agree that safeguarding long-term fiscal sustainability through fiscal reforms remain important**. They stressed the importance of adopting fiscal rules and advancing pension reforms in a timely manner. On revenue mobilization, the authorities clarified that raising VAT rates is not considered as a priority due to potential side effects on income inequality. Instead, they expect an increase in tax revenue

<sup>&</sup>lt;sup>20</sup> See Lee (2023) for estimates of economic effects of hypothetical increases in precipitation and temperature in <u>Korea.</u>

<sup>&</sup>lt;sup>21</sup> See Black, Kirabaeva, and Parry (2021), Black, Parry, and Zhunussova (2024), and <u>IMF Country Report No. 23/369</u> for details.

collections through rationalizing tax expenditures. On spending prioritization, they are actively addressing issues with SME subsidies by removing and consolidating inefficient programs and enhancing inter-ministerial collaboration. The authorities are normalizing domestic energy prices through several rounds of price hikes and agree to further align domestic energy prices with international commodity prices. Efforts to enhance revenue forecasting accuracy are also ongoing.

**44.** The authorities broadly shared staff's assessment of Korea's climate policies. They have strengthened support to the development of green industries and intend to set the total emission cap for the 4<sup>th</sup> phase of K-ETS (2026-2030) in line with the NDC target and reduce the share of free allowance.

**45.** The authorities' structural reforms agenda will be guided by the recently introduced **DER**. The authorities highlighted that the DER provides a framework to boost growth and build resilience, noting that it may be adjusted, as needed, to address issues arising from potential policy changes in major trading partners. The details to implement the DER are being worked out.

## **STAFF APPRAISAL**

**46. Strong economic fundamentals and sound macroeconomic policies have helped Korea navigate through multiple shocks in recent years.** Economic growth has recovered, inflation has steadily declined after the initial surge, and financial stability risks have decreased. The authorities' swift policy responses to contain inflation and financial stability risks, have helped to stabilize the economy and reduce vulnerabilities. The external position in 2024 was broadly in line with the level implied by medium-term fundamentals and desirable policies.

**47. GDP** is expected to reach potential in 2025 and the economy to be in broad balance, but uncertainties remain high and risks are tilted to the downside. As domestic demand strengthens gradually and export growth normalizes, GDP growth is expected to moderate toward trend in 2025, and inflation is projected to stay near the target. The external position is expected to normalize in 2025 and FX reserves remain adequate. Downside risks have increased, however, amid high uncertainty from policy shifts in major trading partners and recent domestic political developments, softening global semiconductor demand, higher global commodity price volatility, and intensification of geopolitical conflicts.

**48. Monetary policy should remain agile.** With progress in disinflation and some residual weakness in domestic demand, monetary policy normalization appropriately began in late 2024. With upside and downside risks to inflation, and high uncertainty, the timing and pace of future rate changes should be aligned with the evolving economic prospects and balance of risks to inflation and the economy.

**49.** The proposed fiscal consolidation in the 2025 budget is welcome. Gradual consolidation will contribute to rebuilding fiscal buffers and stabilizing the public debt ratio, but more ambitious medium-term consolidation will be needed to meet significant long-term spending pressures from

aging. In case downside risks materialize, additional fiscal support to the vulnerable could be considered.

**50. Financial sector risks have decreased, but pockets of vulnerability remain.** Swift and targeted policy efforts have reduced financial risks. However, the authorities should continue to monitor real estate sector-related financial risks, including project financing and asset quality in NBFIs, and stand ready to act preemptively with supervisory and regulatory measures.

**51. Medium-to-long term reforms are crucial to sustain growth and build resilience amid structural challenges.** Tackling declining labor force from rapid population aging, enhancing capital allocation, and bolstering productivity remain important to boost the growth potential. Reforms would also help enhance the resilience of the Korean economy in a changing domestic and global environment, with challenges from intensification of geoeconomic fragmentation, rapid technological changes, population aging, and climate change.

**52. Comprehensive reforms are needed to tackle a declining labor force.** Alleviating economic constraints would help raise Korea's fertility rate, including through reducing high costs of raising children (education, housing, and career costs for women) and raising income for youth. In the interim, increasing female labor force participation and attracting foreign talent would help ease demographic pressures.

**53. Continued efforts to improve capital allocation would support growth.** Recent measures to strengthen financial resilience are welcome, while continued efforts are needed to improve depository NBFIs' loss absorption capacities. Gradual private debt deleveraging is desirable, including through prudential policies and housing supply measures. The recent FX market and corporate value-up reforms are likely to enhance stock market efficiency and deepen the currency market.

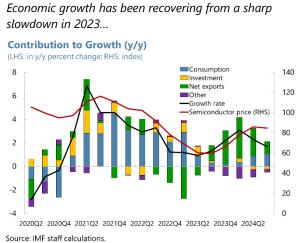
**54.** Leveraging on innovative technology and improving allocative efficiency would boost productivity. Increasing investment in AI innovation and integration, while advancing adequate regulatory frameworks, would help fully harness AI's potential benefits. A more flexible labor market, targeted training and reskilling programs and a stronger social safety net would help protect vulnerable groups during the AI transition. More flexible product markets and a lower regulatory burden would help improve the competitiveness of the services sector. Improving allocative efficiency and refocusing support to productivity-enhancing firms could boost SMEs' productivity.

**55.** Keeping Korea's technological advantage is of paramount importance to retain market share amid intensifying global competition. Boosting innovation and scaling up R&D; bolstering productivity through labor and product marker reforms; and diversifying export products and destinations would help maintain competitiveness of strategic sectors while avoiding resource waste.

**56.** Comprehensive fiscal reforms are essential to address growing spending pressures from population aging. Policy priorities include reforming the pension system to ensure its sustainability, adopting fiscal rule to anchor public finances, increasing revenue mobilization and prioritizing spending to meet long-term spending needs.

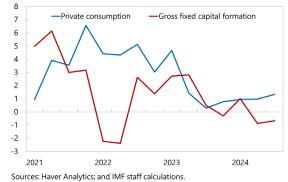
**57. Concrete policy measures are needed to reach Korea's climate goals.** Aligning the K-ETS' emission caps, price floor, and share of auctioned allowance with the emission targets in phase IV (2026-2030) remain important. Other policy options include reinforcing carbon pricing with feebates in emissions-intensive sectors and increasing and expanding the coal tax to expedite transition toward greater use of renewables in the energy mix.

# 58. It is recommended that the next Article IV consultation be held on the standard 12-month cycle.

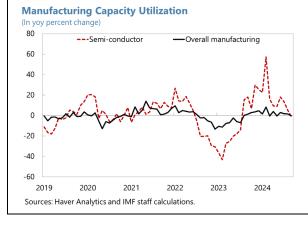


# ...while private consumption and investment has remained weak.

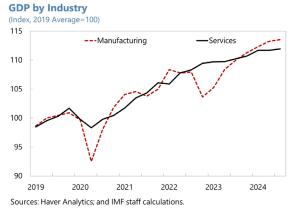
#### **Private Consumption and Gross Fixed Capital Formation** (In y/y percent change)



# ...while overall manufacturing recovered in 2024 at a more moderate pace.

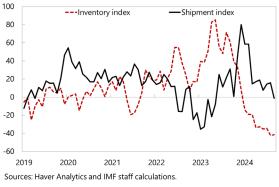


... driven primarily by manufacturing led by the semiconductor sector.



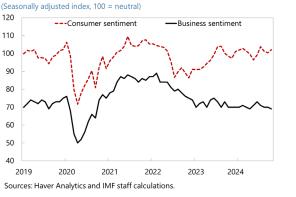
#### The semiconductor sector has rebounded strongly...

## Semi-conductor Inventory and Shipment Index (In yoy percent change)

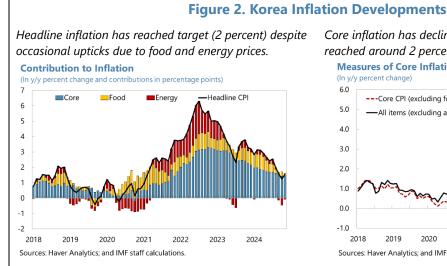


# Consumer and business sentiments remained broadly stable.

Consumer and Business Sentiment Index

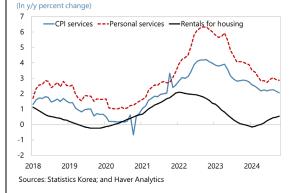


### Figure 1. Korea Real Sector Developments

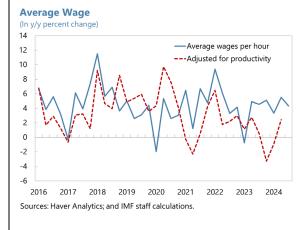


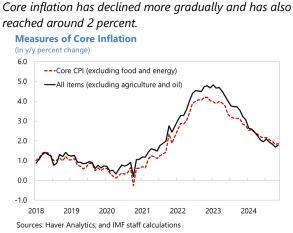
#### Service inflation declined reflecting weak consumption demand...

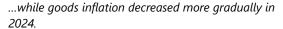
#### **Prices of Services**



Wage growth has increased as the economy recovers but has remained moderate.

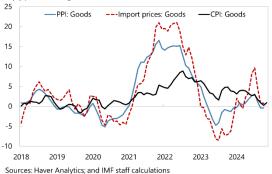




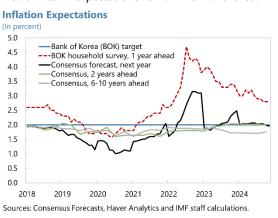


#### **Prices of Goods**

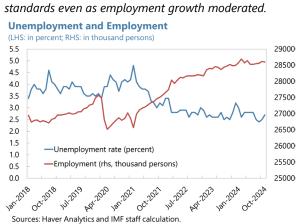
(In y/y percent change)



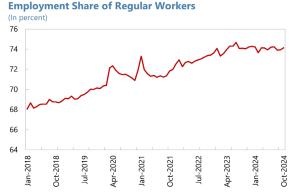
# medium-term expectations remain well-anchored.



Inflation expectations have declined steadily, and

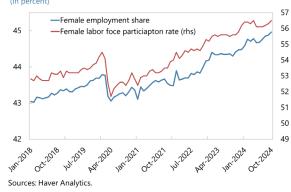


The share of regular workers has plateaued after years of increase.



Sources: Haver Analytics and IMF staff calculation.

The female employment share has been rising driven by increasing female labor participation.



Female Employment Share and Labor Force Participation (In percent)



Sources: Haver Analytics and IMF staff calculation

The increase in employment is led by the 60+ age group while youth employment has declined.

**Employment by Age Groups** 



Sources: Haver analytics and IMF staff calculations.

The overall labor force participation rate, while exceeding pre-COVID levels, has decreased recently.

Labor Force and Labor Force Participation (LHS: in thousands; RHS: in percent) 30,000 65.0 -Labor force (thousands of persons) 29,500 64.5 ---Labor force participation rate (percent, rhs); 29,000 64.0 28.500 63.5 28,000 63.0 27.500 62.5 27,000 62.0 26,500 61.5 26,000 61.0 25,500 60.5 25.000 60.0 Jan-2018 oct-2018 Jul-2019 A91-2020 0<sup>ct-2021</sup> 141-2022 202

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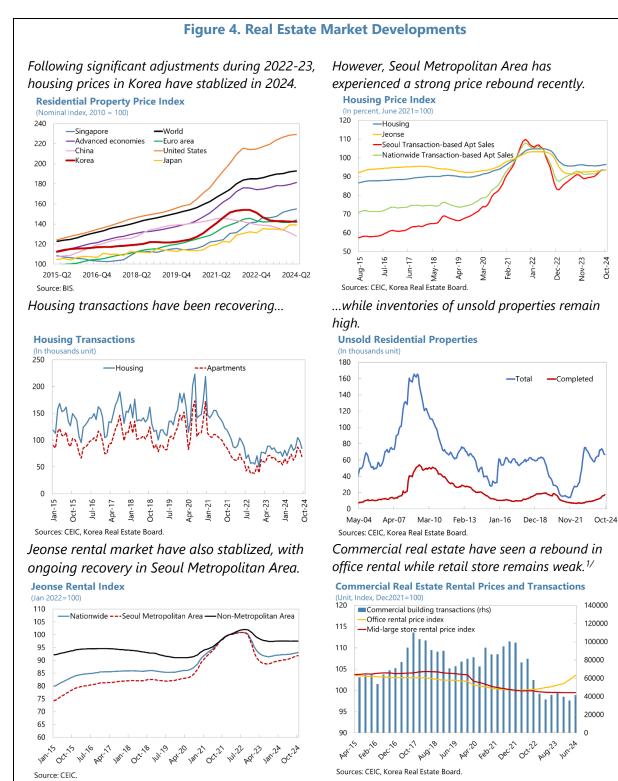
Sources: Haver analytics and IMF staff calculation.

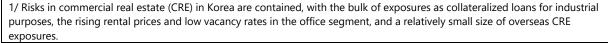
#### Figure 3. Korea Labor Market Developments

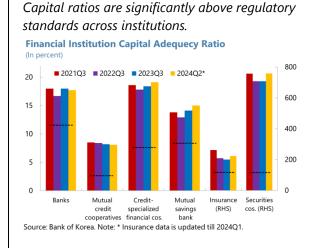
The unemployment rate remained low by historical

The post-pandemic tight labor market started softening in 2023H2.

Oct-24

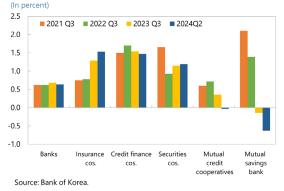




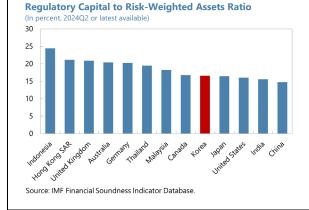


Profitability remains high, except in mutual savings bank and credit cooperatives...

Return on Asset by Financial Sector

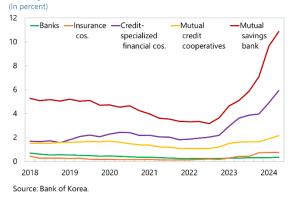


# Banks are sound, though room exists to catch up on capital ratios...



#### Figure 5. Financial Institution Soundness

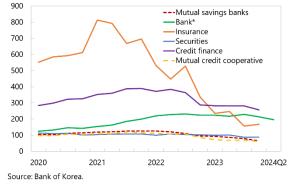
Overall NPLs are low, though rising among mutual savings bank and credit cooperatives. NPL by Financial Sector



# ...and loan loss provisions though sizable, have declined in some institutions.

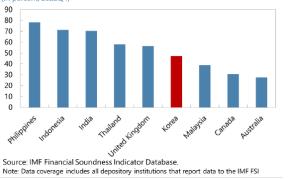
#### Loan Loss Provision Coverage

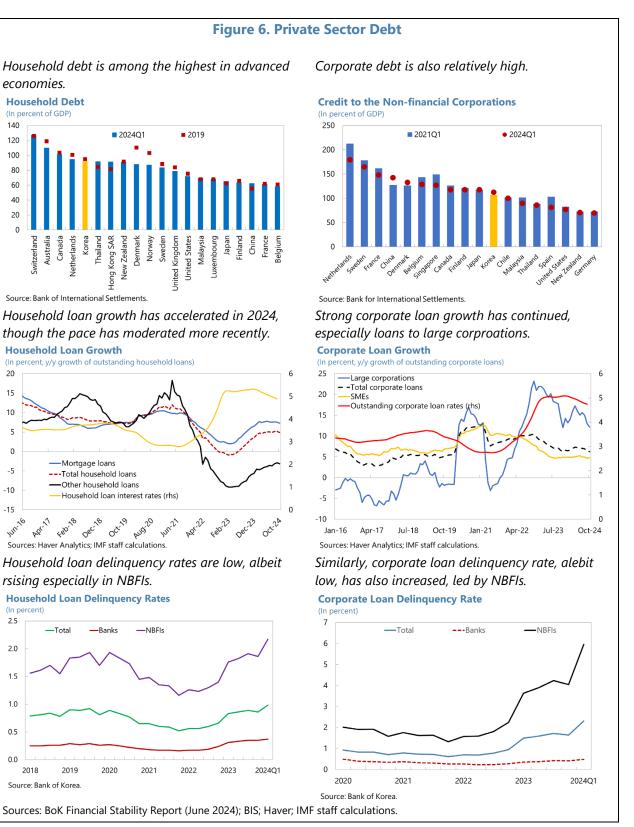
(In percent, loan loss provisions/substandard-or-below loans)

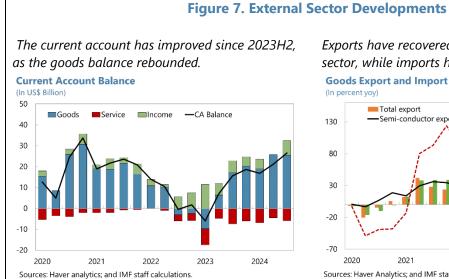


#### ... and NPL provisions with global peers.

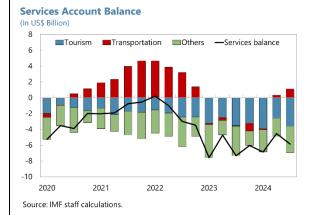
**Specific NPL Provisions in Korea and Peers** (In percent, 2022Q4)



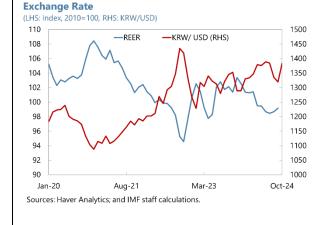




#### The service balance remained in deficit due to growing outbound travel.

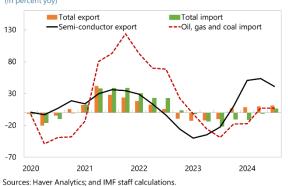


#### The REER has depreciated following last year's appreciation.

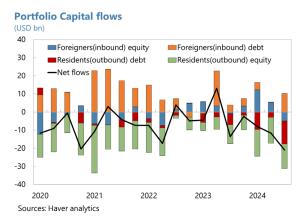


Exports have recovered, led by the semiconductor sector, while imports have remained weak.

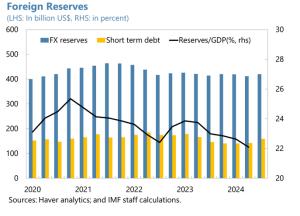


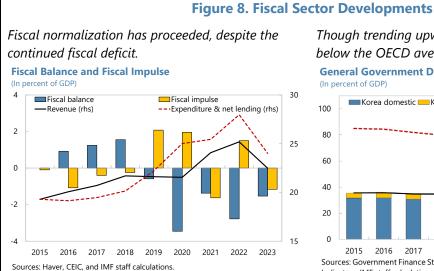


Net portfolio outflows have increased, led by rising resident equity outflows.



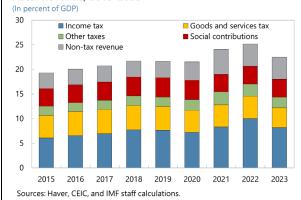
#### Despite a slight decline, FX reserves remain adequate.





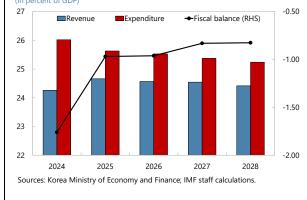
#### Revenues have been increasing over time, driven by income tax revenue growth.

Fiscal Revenue, 2015-2023



#### Authorities are projecting a moderate fiscal consolidation in the medium term, ...

**Authorities' Fiscal Projections** (In percent of GDP)



Though trending upward, public debt remains well below the OECD average.

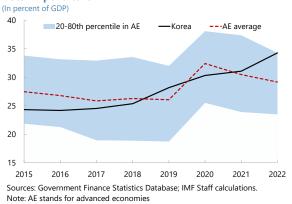
#### General Government Debt, 2015-2023



Sources: Government Finance Statistics Database, OECD Public Finance Main Indicators, IMF staff calculations. The 2023 debt levels are estimated.

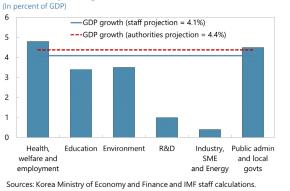
#### ... allowing for spending to catch up with AE peers.

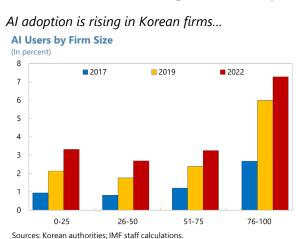
**Fiscal Expenditure** 



#### ...with greater emphasis on increasing social, environmental, and administrative spending.

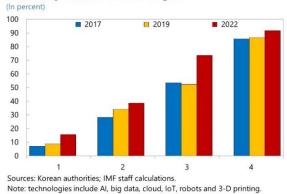
Growth in Spending Priorities, 2025-2028



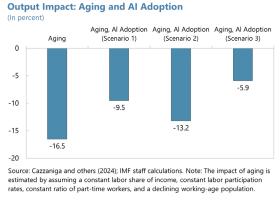


#### ...with strong technology capacities.

AI Users by Number of Technologies



...largely offsetting the adverse impact of aging.



#### Figure 9. AI Adoption and Productivity Gains

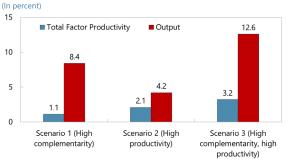
...notably large and young firms...

#### Al Users by Firm Age (In percent) 9 2017 2019 2022 8 7 6 5 4 3 2 1 0 0-5 6-10 11+

Sources: Korean authorities; IMF staff calculations.

#### Al adoption can boost output and productivity...

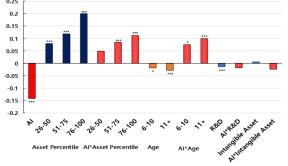




Source: Cazzaniga and others (2024) and IMF staff calculations. Note: For details on the model, see Rockall, Pizzinelli, and Tavares (2024). The figure shows the change in total factor productivity and output between the initial and final steady state.

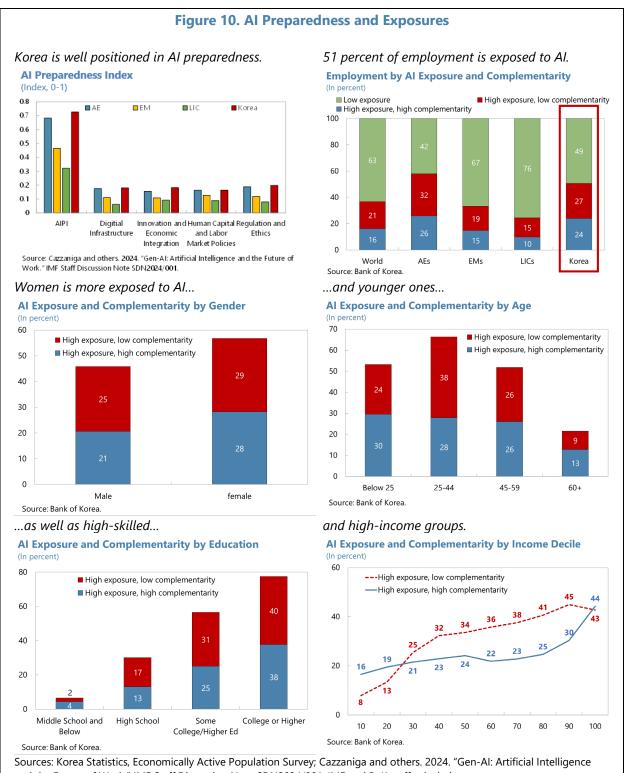
# *Productivity enhancement is more pronounced in large and mature firms.*

Estimation for the Extended Productivity Regression (Coefficient)



Sources: Korea Statistics, Survey of Business Activities; and BoK staff calculations

Sources: Korea Statistics, Survey of Business Activities; Cazzaniga and others (2024); BoK and IMF staff calculations.



and the Future of Work." IMF Staff Discussion Note SDN2024/001; IMF and BoK staff calculations.

					Р	rojection			
	2022	2023	2024	2025	2026	2027	2028	2029	2030
Real GDP (percent change)	2.7	1.4	2.2	2.0	2.1	2.1	2.0	2.0	1.9
Total domestic demand	2.8	1.4	0.8	1.5	2.0	2.0	2.0	2.0	2.0
Final domestic demand	2.8	1.6	0.9	1.5	2.0	2.0	2.0	2.0	2.0
Consumption	4.2	1.6	1.3	1.7	2.0	2.0	1.9	1.9	1.9
Gross fixed investment	-0.2	1.4	0.0	1.0	2.1	2.0	2.0	2.0	2.0
Stock building 1/	0.5	0.0	-0.7	0.0	0.0	0.0	0.0	0.0	0.0
Net foreign balance 1/	0.1	0.2	1.2	0.7	0.2	0.2	0.2	0.1	0.0
Potential output	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9
Output gap (percent of potential GDP)	0.3	-0.4	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Saving and investment (in percent of GDP)									
Gross national saving	34.4	34.2	34.5	34.9	35.0	35.1	35.1	35.1	35.0
Gross domestic investment	33.3	32.3	30.3	31.3	31.1	31.0	30.8	30.7	30.6
Current account balance	1.4	1.9	4.2	3.6	3.8	4.1	4.3	4.4	4.4
Prices (percent change)									
CPI inflation (end of period)	5.0	3.2	1.9	2.0	2.0	2.0	2.0	2.0	2.0
CPI inflation (average)	5.1	3.6	2.3	2.0	2.0	2.0	2.0	2.0	2.0
Core inflation (average)	3.6	3.4	2.2	2.0	2.0	2.0	2.0	2.0	2.0
GDP deflator	1.8	1.9	3.1	2.2	1.8	1.9	1.8	1.9	2.0
Real effective exchange rate	-5.3	2.3							
Central government (in percent of GDP)									
Revenue	25.2	22.5	22.3	22.9	23.0	23.0	23.0	23.0	23.0
Expenditure	26.7	23.2	22.9	23.2	23.2	23.1	23.1	23.1	23.1
Net lending (+) / borrowing (-)	-1.5	-0.7	-0.6	-0.3	-0.2	-0.1	-0.1	-0.1	-0.1
Overall balance	-2.8	-1.5	-1.5	-1.2	-1.2	-1.0	-1.0	-1.0	-1.0
Excluding Social Security Funds	-5.0	-3.6	-3.6	-3.2	-3.1	-2.9	-2.8	-2.8	-2.7
Cyclically-adjusted primary balance	-1.8	-0.7	-0.7	-0.3	-0.2	-0.1	0.0	0.0	0.1
Central government debt	44.5	45.5	46.8	48.1	49.3	50.3	51.2	52.0	52.8
Money and credit (end of period)									
Overnight call rate	3.4	3.9	3.3						
Three-year AA- corporate bond yield	5.2	3.9	3.3						
Credit growth	7.5	4.0	5.8	4.8	4.4	4.2	4.0	4.0	3.9
M3 growth	4.1	4.2							
Balance of payments and external balance shee	et (in billio	ons of U.S.	. dollars)						
Exports, f.o.b.	694.3	645.0	709.9	744.5	775.9	808.5	841.9	877.1	914.7
Imports, f.o.b.	678.7	611.0	619.8	663.8	685.9	710.7	739.6	769.2	800.5
Current account balance	25.8	35.5	79.1	68.7	76.0	84.7	91.3	97.3	101.4
Export volumes (percent change)	1.8	1.0	6.2	4.0	3.3	3.2	3.1	3.0	2.9
Import volumes (percent change)	4.4	-3.9	2.6	2.8	3.4	3.2	3.1	3.1	3.1
Gross international reserves 2/									
Level, end of period	418.4	415.4	411.1	409.4	447.4	435.8	432.5	441.5	449.6
In percent of short-term debt									
(residual maturity)	184.0	214.1	212.4	209.0	225.3	217.4	213.0	215.5	216.4
Total external debt (in percent of GDP)	39.7	36.6	37.3	38.7	40.8	41.0	41.6	42.0	42.2
Memorandum items									
Nominal GDP (trillion won)	2,323.8	2,401.2	2,532.2	2,639.5	2,744.4	2,853.7	2,964.4	3,080.7	3,200.2
Unemployment rate (percent)	2.9	2.7	2.7	2.8	2.9	2.9	2.9	2.9	2.9
General government debt (percent of GDP) 3/	49.8	51.5	52.8	54.1	55.3	56.3	57.2	58.0	58.8

Contribution to GDP growth.
 Excludes gold. Includes 2021 general SDR allocation.

3/ General government debt includes debt of the central government and local governments.

## Table 2. Korea: Balance of Payments, 2022-30

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

					F	rojection					
	2022	2023	2024	2025	2026	2027	2028	2029	203		
Current account balance	25.8	35.5	79.1	68.7	76.0	84.7	91.3	97.3	101.		
Goods balance	15.6	34.1	90.1	80.8	90.1	97.8	102.3	108.0	114.		
Exports	694.3	645.0	709.9	744.5	775.9	808.5	841.9	877.1	914.		
Imports	678.7	611.0	619.8	663.8	685.9	710.7	739.6	769.2	800		
Services balance	-7.3	-25.7	-23.3	-26.1	-30.8	-33.4	-34.1	-35.0	-38		
Primary income	20.3	31.6	17.2	19.3	22.1	25.9	28.8	30.3	31		
Secondary income	-2.9	-4.5	-4.9	-5.2	-5.4	-5.5	-5.7	-5.9	-6		
Capital account balance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0		
Financial account balance 1/	54.9	36.0	82.0	69.8	50.7	92.5	93.5	91.3	96		
Portfolio investment	25.8	7.4	55.2	42.0	19.2	56.8	53.2	52.5	54		
Direct investment	40.8	19.4	31.6	32.6	33.5	36.5	37.8	38.2	36.		
Financial derivatives	7.4	-0.5	-2.0	-1.1	-1.0	-1.1	-1.9	-2.2	-2		
Other investment	-19.1	9.6	-2.9	-3.7	-1.0	0.2	4.4	2.8	7		
Net errors and omissions	1.2	-3.1	0.0	0.0	0.0	0.0	0.0	0.0	0		
Reserves and related items	-27.9	-3.6	-2.8	-1.1	25.4	-7.7	-2.2	6.0	5		
Net International Investment Position	771.3	779.9	817.3	904.9	1020.3	1069.2	1168.3	1284.6	1401		
	(In percent of GDP)										
Current account balance	1.4	1.9	4.2	3.6	3.8	4.1	4.3	4.4	4		
Goods balance	0.9	1.9	4.8	4.2	4.6	4.8	4.8	4.9	5		
Services balance	-0.4	-1.4	-1.2	-1.4	-1.6	-1.6	-1.6	-1.6	-1		
Primary income	1.1	1.7	0.9	1.0	1.1	1.3	1.3	1.4	1		
Secondary income	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0		
Capital account balance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0		
Financial account balance 1/	3.1	2.0	4.4	3.7	2.6	4.5	4.4	4.1	4		
Portfolio investment	1.4	0.4	3.0	2.2	1.0	2.8	2.5	2.4	2		
Direct investment	2.3	1.1	1.7	1.7	1.7	1.8	1.8	1.7	1		
Financial derivatives	0.4	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0		
Other investment	-1.1	0.5	-0.2	-0.2	-0.1	0.0	0.2	0.1	0		
Net errors and omissions	0.1	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0		
Reserves and related items	-1.5	-0.2	-0.2	-0.1	1.3	-0.4	-0.1	0.3	0		
Net International Investment Position	42.9	42.4	43.9	47.6	51.6	52.0	54.7	57.9	60		
Memorandum items:											
Gross reserves 2/	418.4	415.4	411.1	409.4	447.4	435.8	432.5	441.5	449		
(in months of imports of goods and											
services)	6.1	6.5	6.3	5.9	6.2	5.8	5.5	5.4	5		
External debt	673.3	672.5	694.0	735.3	806.3	843.8	888.1	930.8	972		
(in percent of GDP)	39.7	36.6	37.3	38.7	40.8	41.0	41.6	42.0	42		
Short-term external debt (inc. trade	174.0	1407	140.2	142.0	145 0	1470	140.0	151.0	1 - 4		
credits) Nominal GDP	174.0 1799.4	140.7 1839.1	140.3 1862.2	142.6 1900.5	145.3 1977.4	147.2 2055.8	149.8 2135.2	151.6 2218.6	154 2304		

1/ Excludes reserves and related items.

2/ Excludes gold. Includes 2021 general SDR allocation.

					F	rojection			
	2022	2023	2024	2025	2026	2027	2028	2029	2030
				(ln tri	llions of v	von)			
Revenue	585.3	539.9	564.4	604.7	630.8	655.8	680.9	707.5	735.1
Tax revenue	395.9	344.1	337.5	382.9	398.1	415.0	432.8	449.8	467.4
Social contributions	83.4	88.9	93.8	97.7	101.6	105.7	109.8	114.1	118.5
Of which: Social security contributions	83.4	88.9	93.8	97.7	101.6	105.7	109.8	114.1	118.5
Other revenue	105.9	106.9	133.1	124.1	131.0	135.1	138.3	143.6	149.1
Expenditure	620.0	556.0	579.4	612.6	636.6	659.8	683.3	710.1	737.7
Expense	609.2	544.6	567.6	600.0	623.5	646.3	669.3	695.6	722.6
Net acquisition of nonfinancial assets	10.8	11.4	11.8	12.5	13.0	13.5	14.0	14.5	15.1
Net lending (+) / borrowing (-)	-34.7	-16.1	-15.1	-7.8	-5.8	-4.1	-2.5	-2.6	-2.6
Policy lending	29.9	20.6	22.5	23.5	25.8	25.4	26.3	27.4	28.4
Overall balance 1/	-64.6	-36.8	-37.6	-31.3	-31.6	-29.5	-28.7	-30.0	-31.0
Less: Social Security Fund (SSF) balance	52.5	50.3	53.8	53.3	52.2	53.3	54.3	55.4	55.4
Managed balance									
(overall balance excl. SSF)	-117.0	-87.0	-91.4	-84.6	-83.8	-82.7	-83.1	-85.4	-86.4
				(ln pe	ercent of (	GDP)			
Revenue	25.2	22.5	22.3	22.9	23.0	23.0	23.0	23.0	23.0
Tax revenue	17.0	14.3	13.3	14.5	14.5	14.5	14.6	14.6	14.6
Social contributions	3.6	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Of which: Social security contributions	3.6	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Other revenue	4.6	4.5	5.3	4.7	4.8	4.7	4.7	4.7	4.7
Expenditure	26.7	23.2	22.9	23.2	23.2	23.1	23.1	23.1	23.1
Expense	26.2	22.7	22.4	22.7	22.7	22.6	22.6	22.6	22.6
Net acquisition of nonfinancial assets	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Net lending (+) / borrowing (-)	-1.5	-0.7	-0.6	-0.3	-0.2	-0.1	-0.1	-0.1	-0.1
Policy lending	1.3	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Overall balance	-2.8	-1.5	-1.5	-1.2	-1.2	-1.0	-1.0	-1.0	-1.0
Less: Social Security Fund balance	2.3	2.1	2.1	2.0	1.9	1.9	1.8	1.8	1.7
Managed balance									
(overall balance excl. SSF)	-5.0	-3.6	-3.6	-3.2	-3.1	-2.9	-2.8	-2.8	-2.7
				(ln pe	ercent of (	GDP)			
Memorandum items:									
Primary balance (excluding policy lending)	-1.7	-0.7	-0.7	-0.3	-0.2	-0.1	0.0	0.0	0.0
Central government debt (trillion won)	1,033.4	1,092.5	1,183.9	1,268.4	1,352.2	1,434.9	1,518.0	1,603.3	1,689.8
Cyclically-adjusted primary balance	-1.8	-0.7	-0.7	-0.3	-0.2	-0.1	0.0	0.0	0.1
Central government debt	44.5	45.5	46.8	48.1	49.3	50.3	51.2	52.0	52.8
General government debt	49.8	51.5	52.8	54.1	55.3	56.3	57.2	58.0	58.8

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

1/ Overall balance is equal to net lending/borrowing minus policy lending.

#### **REPUBLIC OF KOREA**

	2019	2020	2021	2022	2023	2024Q1	2024Q
ore FSIs for Deposit takers 1/			(In	percent)			
Regulatory capital to risk-weighted assets	15.3	16.5	16.5	16.0	16.6	16.3	16
Regulatory Tier 1 capital to risk-weighted assets	14.0	15.1	15.3	14.1	14.7	14.6	14
Nonperforming loans net of provisions to capital	-	-	-	-	1.0	1.2	1
Nonperforming loans to total gross loans	0.3	0.2	0.2	0.2	0.3	0.3	C
Return on assets	0.7	0.6	0.7	0.7	1.0	0.7	C
Return on equity	6.8	6.5	6.7	7.2	11.1	7.9	ç
Interest margin to gross income	62.4	60.4	70.1	85.0	76.1	76.1	76
Noninterest expenses to gross income	65.4	63.4	58.4	65.4	54.9	59.4	48
Liquid assets to total assets (Liquid Asset Ratio)	32.1	30.4	30.6	31.2	31.3	32.6	30
Liquid assets to short-term liabilities	110.0	102.2	106.9	91.5	103.8	115.3	109
Net open position in foreign exchange to capital	0.1	0.0	1.5	3.8	4.0	4.1	4

1/ Course 30 activities that are at ECL data area at its found wild yield at the second of a

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1/ Covers 20 entities that report FSI data, accounting for about 3/4 of total assets of all deposit takers.

### Table 5. Korea: Monetary Statistics 2018-23

(In trillions of won, unless otherwise indicated, end of period)

	2018	2019	2020	2021	2022	2023
Monetary Authority						
Net foreign assets	395	408	418	453	431	425
Foreign assets	442	449	455	516	488	464
Foreign liabilities	47	41	37	62	57	39
Net domestic assets	-380	-390	-396	-429	-409	-404
Depository Corporations						
Net foreign assets	576	612	628	705	676	718
Domestic claims on the private sector	3,171	3,456	3,770	4,198	4,488	4,669
Claims on non-financial corporations	1,588	1,773	1,964	2,241	2,480	2,650
Claims on households	1,097	1,146	1,234	1,327	1,318	1,304
Claims on other financial corpoprations	486	537	572	630	689	71
Monetary Aggregates						
Monetary base	172	192	222	249	276	274
M1	866	953	1,198	1,372	1,237	1,24
M2	2,700	2,914	3,200	3,614	3,758	3,90
Liquidity aggregate	4,850	5,227	5,679	6,277	6,588	6,788
		(In perce	ent, Y/Y gro	wth)		
Monetary base	10.6	11.3	15.5	12.3	10.9	-0.7
M2	6.7	7.9	9.8	12.9	4.0	3.9
Claims on the private sector from depository corporations	7.9	9.0	9.1	11.3	6.9	4.0
Claims on non-financial corporations from depository corporations	7.6	11.6	10.8	14.1	10.7	6.8
Claims on households from depository corporations	5.9	4.5	7.6	7.5	-0.6	-1.1

	Fund Recommendations	Policy Actions
Monetary Policy	The monetary policy rate should stay above neutral and data dependent.	The BoK has appropriately kept a restrictive monetary stance to ensure price stability.
Fiscal Policy	<ul> <li>Maintain a contractionary fiscal stance.</li> <li>Better align domestic energy prices with international commodity prices.</li> </ul>	<ul> <li>There are some emerging signs of spending rationalization as the government aims to maintain fiscal consolidation amid sizable revenue shortfalls in 2024.</li> <li>Domestic energy prices rose in 2023 before being frozen again in 2024.</li> </ul>
Housing and Financial	<ul> <li>Financial support measures should be kept temporary and targeted.</li> <li>Housing-related measures should strike a balance between preventing excessive price falls and allowing for orderly adjustment.</li> <li>Enhance resilience of NBFIs through stronger buffers, regulation, supervision, and risk management.</li> <li>Comprehensive effects are peeded to</li> </ul>	<ul> <li>Measures are targeted and most temporary measures have expired.</li> <li>Swift actions have stabilized the housing market and policy focus has rightly shifted to containing risks from rising housing prices.</li> <li>Efforts have been made to enhance loan loss provisions, financial supervision, and risk monitoring of weak NBFIs.</li> </ul>
	<ul> <li>Comprehensive efforts are needed to address high levels of private debt.</li> </ul>	<ul> <li>Lending regulations have been tightened to contain the rise in private debt.</li> </ul>
Structural	<ul> <li>Anchor fiscal policy in a well-designed rule-based framework.</li> <li>Pursue fiscal consolidation by advancing revenue mobilization and spending rationalization.</li> </ul>	<ul> <li>The fiscal rule is under discussion at the parliament after its submission in 2022.</li> <li>The authorities envisage continued fiscal consolidation over the medium term, mainly through expenditure rationalization.</li> </ul>
	<ul> <li>Reform pension systems, including raising contribution rates, increasing the retirement age, and other options.</li> <li>Advance labor market reforms to tackle high labor market rigidity.</li> <li>Narrow the gender gap by lower the family care burden on women and reduce labor market duality.</li> <li>Establish a level playing field between services and manufacturing.</li> <li>Strengthen climate policies by reforming the KETS, introducing sectoral feebates, and increasing and expanding coal taxes.</li> </ul>	<ul> <li>A new and detailed pension reforms proposal has been released and is expected to be discussed in the parliament.</li> <li>Political gridlock has challenged the progress on structural reforms. The authorities are continuing with the working hours reform and developing plans to reduce labor market duality.</li> <li>Some regulatory innovation and resolution of on-site obstacles have been implemented to invigorate emerging industries including services.</li> <li>The authorities released the 1<sup>st</sup> Framework Plan for Carbon Neutrality and Green Growth and are preparing to lay out new climate mitigation policies.</li> </ul>

# **Annex I. Implementation of Past Fund Advice**

## Annex II. Dynamic Economy Roadmap<sup>1</sup>

1. The Dynamic Economy Roadmap (DER), a structural reform initiative, aims to improve the quality of life and enhance economic sustainability. Introduced by the authorities in July 2024, the DER has three main pillars to realize a dynamic economy where growth and mobility produce a virtuous circle:

- **Strengthening the innovation ecosystem**. This pillar aims to reignite growth through innovation to counteract a rapid decline in labor force. The DER also proposes strategic responses to adapt to changing environments, such as GEF, restructuring of global supply chains, digital transformation, and the rapid growth of service trade. It aims to achieve this through building a high-productive economic system, boosting the optimization of production factors, and expanding global networks.
- **Ensuring fair opportunity**. This pillar aims to establish equal opportunity and fair reward system for sustainable innovation and social mobility. To accomplish these objectives, the DER focuses on addressing weaknesses in the labor and product markets.
- **Improving social mobility**. This pillar aims to raise opportunities for intra- and intergenerational mobility for better wealth distribution and social integration. The roadmap aims at increasing household income and assets, reducing essential living expenses, innovating the education system, and bolstering protection and support for the vulnerable.

Table 1. Korea: Key Pri	orities of the DER
Structural Challenge	Proposed Plan
Stagnant productivity growth and low productivity in SMEs and service industries.	• Establish a corporate growth ladder, foster new service industries, and leap forward to become a leader in digital transformation by investing in major game changers such as Al-semiconductor, quantum, and biotech industries.
Decline in the contribution of the three major production factors (capital, labor, and land) to growth due to delays in capital market development, lack of regional investment, inefficient land use regulations, and low fertility rates.	<ul> <li>Capital: Advance capital markets by implementing the Corporate Value-up program and attracting private venture capital.</li> <li>Labor: Prepare strategies to attract and utilize foreign talents, which include nurturing talents in advanced industries and providing special visas for outstanding talents in advanced industries.</li> </ul>

<sup>&</sup>lt;sup>1</sup> Prepared by Hyeryoun Kim (APD).

Table 1. Korea: Key Prioriti	es of the DER (Concluded)
Fragmentation and restructuring of supply chains.	<ul> <li>Devise tailored strategies to achieve top ranking in FTAs, supply chain stability, and be included in one of the three major hubs in the Asia-Pacific region.</li> </ul>
Barriers to entry, anti-competitive regulations, and unfair practices restrict the pursuit of innovation and infringe on consumer rights.	<ul> <li>Conduct a survey of entry and competition restricting regulations in the economic sector to develop improvement plans.</li> <li>Reinforce legal and support systems to protect victims of unfair trade practices.</li> </ul>
Significant wage gaps based on years of service and labor market duality. Insufficient work-life balance.	<ul> <li>Promote job- and performance-based wage systems and continued employment.</li> <li>Push forward the enactment of laws supporting vulnerable workers,</li> <li>Aim for a work-life balance to match advanced countries with high work-life balance.</li> </ul>
The labor force participation rates of youth and women are below the OECD average.	<ul> <li>Set a goal to raise the labor force participation rates to the average level of OECD.</li> </ul>
High housing costs. High private education costs and inadequate high- quality human resources.	<ul> <li>Increase the supply of rental housing and introduce a new long-term rental service.</li> <li>Expand free after-school program, promote vocational education and designate AI and software Meister High schools (high schools aimed at nurturing professionals in specific technology fields).</li> </ul>
Source: The Korean authorities.	

## **Annex III. External Sector Assessment**

**Overall Assessment:** On a preliminary basis, the external position in 2024 is assessed to be broadly in line with the level implied by medium-term fundamentals and desirable policies. A final assessment will be provided in the 2025 *External Sector Report.* The strong recovery of semiconductor exports has significantly increased the CA surplus in 2024 and is expected to sustain in the medium term. Risks from geopolitical tensions, if they materialized, could impede trade and investment.

**Potential Policy Responses:** The normalization of monetary policy and, fiscal consolidation is appropriate and will support macroeconomic stability that is conducive to maintain Korea's external position in the near term. Over the medium term, an increase in precautionary savings in light of the aging-related rise of spending on healthcare and pension, orderly deleveraging of private debt and policies to mitigate risks arising from geopolitical tensions would help to keep external position strong. Exchange rate flexibility, with intervention limited to preventing disorderly market conditions, would help the economy absorb external shocks. Industrial policies should remain narrowly targeted to specific objectives and aim to minimize trade and investment distortions.

Foreign Asset and Liability Position and Trajectory	2024, both the improved sign medium term, <b>Assessment.</b> T asset holdings foreign assets positive valuati direct investme	<b>Eackground.</b> The NIIP has been positive and has significantly increased in the past decade. In 024, both the estimated nominal value of NIIP (\$ 817bn) and the NIIP-to-GDP ratio (43.9 percent) mproved significantly relative to 2023. The NIIP is projected to rise further in 2025 and over the nedium term, to about 60 percent of GDP in 2030, on the back of increasing CA surpluses. <b>Assessment.</b> The large and positive NIIP is a key factor supporting external sustainability. Foreign set holdings are diversified, with 37 percent in equity or debt securities. About 60 percent of oreign assets are denominated in dollars, implying that depreciation of the won can have large ositive valuation effects in aggregate. The structure of liabilities further limits vulnerabilities, with irect investment and long-term loans together accounting for 53 percent of liabilities and 5.7 percent of liabilities denominated in Korean won.										
2024 (%GDP) est.	NIIP: 43.9											
Current Account	4.2 percent of saving-investm surplus in 2024 developments surge during 2 2023. But a stru- 49 percent (y/) growth in semi of commodity In first three qu 3.5 percent of <b>Assessment.</b> T adjusted CA of error of 0.9 per	GDP in 2024, main nent perspective, 4 despite a mode in CA have been 021-22, semicond ong recovery is o () up to 2024Q3, iconductor expor import prices, is p uarters of 2024, the annual GDP. The preliminary Eff about 4.5 percer rcent of GDP). Base	nly driven b a significan rate increas driven signi ductor expo ngoing, wit and the reco ts over the projected to be CA surple BA CA mode at of GDP an sed on the 0	by a stror t drop in e in the s ificantly l orts decre h semico overy is e medium o increase us alread el estima el estima cA mode	ng rebound the investm saving rate. by the globa eased sharpl inductor exp expected to term, couple the CA sur ly reached \$ tes a near-z A norm of 4 el, the IMF st	y by about 2 perc ports already up b remain robust in ed with the expec plus to 4.4 percer 64.6 billion, equiv ero gap between .4 percent of GDP	exports. From a e increase in hic, the cycle. Following a tent of GDP in y about 2025. Sustained ted stabilization ht of GDP in 2030. ralent to about the cyclically (with a standard preliminary 2024					
2024 (%GDP) est.	CA: 4.2	Cycl. Adj. CA: 4.5	EBA Nor	m: 4.4	EBA Gap: 0	.0 Staff Adj.: 0	Staff Gap: 0.0					

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Real Exchange Rate	<ul> <li>Background. The REER appreciated by about 2.3 percent in 2023 on average relative to 2022, reversing the sustained depreciation (11.4 percent accumulated) during 2019-2022. The REER appreciation in 2023 was mainly driven by won appreciation against currencies of some major trading partners, notably the Japanese Yen and Chinese Yuan. As of September 2024, the REER depreciated by about 1.1 percent (y/y) relative to 2023.</li> <li>Assessment. The EBA CA gap implies a REER overvaluation of about 0 percent (with an estimated elasticity of 0.32 applied). However, the EBA REER index model estimates an undervaluation of 7.1 percent, while the EBA level model estimates a 7.3 percent undervaluation. Consistent with the staff CA gap, staff assesses the REER gap to be in the range of -2.8 to 2.8 percent, with a midpoint of about 0 percent. Given the wide range of estimates from different approaches, the estimated REER gap should be interpreted with caution.</li> </ul>
Capital and Financial Accounts: Flows and Policy Measures	<ul> <li>Background. Net capital outflows, while on a declining trend since 2016, is estimated to rebound to 4 percent of GDP in 2024 from 2 percent of GDP in 2023. Portfolio outflows picked up by 2.6 percent of GDP, reflecting an increase in residents' outbound investment and the reduction of foreigners' net purchases of securities.</li> <li>Assessment. Amid multiple global shocks in recent years, Korea has demonstrated remarkable resilience in weathering short-term capital flow volatility. The present configuration of capital flows appears sustainable over the medium term, mirroring the projected increase in the CA surplus and NIIP.</li> </ul>
FX Intervention and Reserves Level	<ul> <li>Background. Korea has a floating exchange rate. Based on IMF staff estimates and published data, FX intervention since 2015 has been two-sided. In 2023, FX intervention significantly reduced from net sales of \$45.9 billion (2.8 percent of GDP) in 2022 to \$9.6 billion (0.6 percent of GDP), mostly conducted in the second and third quarters during periods of heightened exchange rate volatility. Amid renewed depreciation pressures in 2024, the authorities intervened in the spot market with net sales of \$7.4 billion up to 2024Q3. As of the end- 2024, reserves stood at \$416 billion, lower than \$420 billion as of end-2023.</li> <li>Assessment. Exchange rate volatility generally does not pose significant economic challenges for Korea, given limited currency mismatches and manageable passthrough to consumer prices. FX market depth, while ranking higher than in most emerging markets, still lags advanced economy peers. In periods of high global financial market uncertainty, there could be herding behavior amid temporarily shallow markets, leading to sharp FX movements and impaired market functioning. Intervention should thus remain limited to preventing disorderly market conditions. As of end- 2024, FX reserves were about 22 percent of GDP, 2.1 times short-term debt, 6.4 months of imports, or 13 percent of M2. Systemwide stress tests also show that reserves provide sufficient FX liquidity buffers under a wide range of plausible shocks.</li> </ul>

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## **Annex IV. Sovereign Risk and Debt Sustainability Assessment**

1. **Background**. Economic growth is expected to reach 2.2 percent in 2024 driven by strong external demand. Despite a significant revenue shortfall, restrained spending maintained a contractionary fiscal stance in 2023. However, the continued revenue shortfall in 2024 is making fiscal consolidation increasingly challenging. Headline inflation has declined to 1.9 percent y/y in December 2024, and is projected to remain close to 2 percent going forward. The Bank of Korea has started monetary easing in 2024Q4, bringing down the policy rate to 3 percent in November 2024. The U.S. Treasury bond yields have risen from the recent trough but remained below their late 2023 peak. The real effective exchange rate depreciated recently on the back of shifting policy expectations and geopolitical developments.

#### **Baseline Scenario**

**2. Macroeconomic assumptions**. Real GDP is projected to expand by 2.0 percent in 2025, supported by robust exports and recovering consumption, before gradually converging to its estimated potential growth rate of 2.0-2.1 percent over the medium term. Headline inflation is projected to stabilize at 2 percent from 2025 onward. Uncertainty to outlook remains high and risks are titled to the downside. The yield on the 10-year U.S. Treasury bond has reached 4.2 percent in November.

**3. Debt trajectory**. The central government's primary deficit is projected to remain at 0.7 percent of GDP in 2024, unchanged from 2023, as the authorities have planned to utilize government funds and reduce expenditures to address tax revenue shortfalls. Over the medium term, the primary deficit is projected to narrow further, reflecting an expected recovery in tax revenue collections and the authorities' efforts to maintain a contractionary fiscal stance. The interest-growth differential is projected to remain favorable. Fiscal deficits excluding the Social Security Fund are expected to decrease only gradually to below 3 percent of GDP and policy lending will continue to create debt financing needs. Central government debt is projected to rise gradually from 45.5 percent of GDP in 2023 to 52.0 percent by 2029, reaching 54.3 percent by 2033.<sup>1</sup>

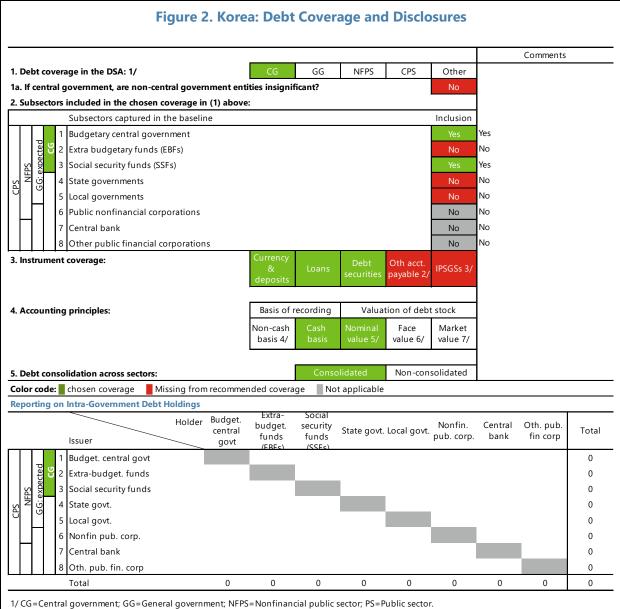
4. **Realism**. Baseline economic forecasts are generally within the error band observed for all countries. Projected fiscal adjustments are realistic compared with historical and cross-country experiences. The key debt drivers during the projection period are broadly in line with historical patterns. While a decrease in real GDP growth is expected to increase debt, the narrowed primary deficit reflects fiscal consolidation compared to the pandemic period. Projections for changes in the debt-to-GDP ratio and the cyclically adjusted primary balance are reasonable when assessed both in a cross-country context and against Korea's own experience. Real GDP growth over the medium term is projected to be below the 10-year historical average, reflecting a slowdown in productivity growth.

<sup>&</sup>lt;sup>1</sup> The recent rebasing of GDP has resulted in a downward revision of the debt-to-GDP ratio compared to the figure in the last debt sustainability assessment (*Annex II. Sovereign Risk and Debt Sustainability Assessment* in <u>IMF Country</u> <u>Report No. 23/369</u>).

This is further evidenced by baseline growth forecasts being lower than those implied by fiscal multipliers, as the latter are based on the historical average.

**5. Vulnerabilities**. Long-term risks are significant as aging-related expenditures on health, welfare, and social security are projected to rise substantially driven by the demographic changes induced by population aging and low fertility rates. These factors will result in increasing debt levels and gross financing needs under the baseline. Comprehensive fiscal reforms, including pension reforms and revenue mobilization, are needed to address long-term fiscal challenges.

Horizon	Mechanical signal	Final assessment	Comments
Overall		Low	The overall risk of sovereign stress is low, reflecting relatively low levels of vulnerability in both the near term and the medium term.
Near term 1/			
<b>Medium term</b> Fanchart	Low	Low	Medium-term risk is assessed as low, in line with the mechanical signal, reflecting a stable debt trajectory and manageable gross financing needs,
GFN Stress test	Low Cont. Liabty.		which are supported by the stable primary balance, steady economic growth, and relatively low initial debt levels by advanced economy benchmarks.
Long term		High	Long-term risks are high, as increased aging-related expenditures on health, welfare, and social security feed into debt dynamics, resulting in increasing debt level and gross financing needs, as indicated in the long- term modules.
Sustainability assessment 2/	Not required for surveillance countries	Sustainable	
Debt stabilization in	the baseline		No
		DSA S	Summary Assessment
compared to advanc	ed economies. The w fertility rate and a	debt composit an aging popula	n stress, with debt remaining sustainable. The debt level remains low ion is favorable. Medium-term risks are low. In the long run, challenges ation are expected to exert upward pressure on expenditures and,
(such as debt restructuri measures—that do not i 1/ The near-term assess precautionary IMF arran 2/ A debt sustainability a signal of the debt sustain	ng). In contrast, a sove nvolve a debt restructu ment is not applicable gements, the near-terr assessment is optional nability assessment is c	reign can face stre uring—to remedy s in cases where the n assessment is perfor surveillance-or leleted before public	sustainability. Unsustainable debt can only be resolved through exceptional measure ss without its debt necessarily being unsustainable, and there can be various such a situation, such as fiscal adjustment and new financing. re is a disbursing IMF arrangement. In surveillance-only cases or in cases with rformed but not published. nly cases and mandatory in cases where there is a Fund arrangement. The mechanical plication. In surveillance-only cases or cases with IMF arrangements with normal acces



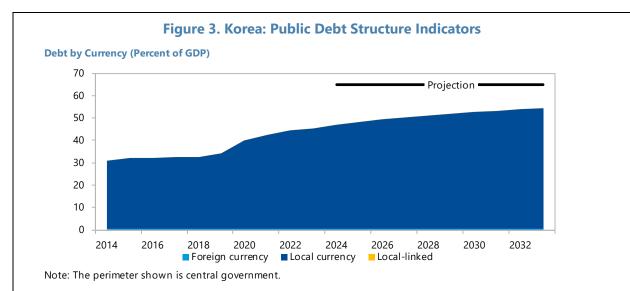
2/ Stock of arrears could be used as a proxy in the absence of accrual data on other accounts payable.

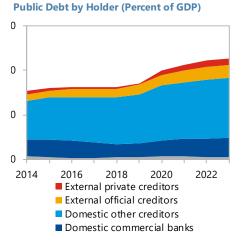
3/ Insurance, Pension, and Standardized Guarantee Schemes, typically including government employee pension liabilities. 4/ Includes accrual recording, commitment basis, due for payment, etc.

5/ Nominal value at any moment in time is the amount the debtor owes to the creditor. It reflects the value of the instrument at creation and subsequent economic flows (such as transactions, exchange rate, and other valuation changes other than market price changes, and other volume changes).

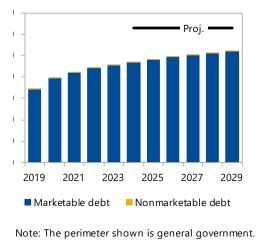
6/ The face value of a debt instrument is the undiscounted amount of principal to be paid at (or before) maturity.

7/ Market value of debt instruments is the value as if they were acquired in market transactions on the balance sheet reporting date (reference date). Only traded debt securities have observed market values.



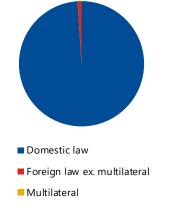


Note: The perimeter shown is general government.

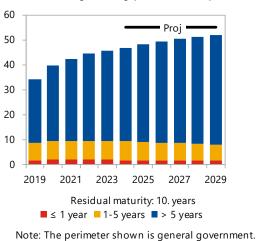




Public Debt by Governing Law, 2023 (percent)



Note: The perimeter shown is general government.

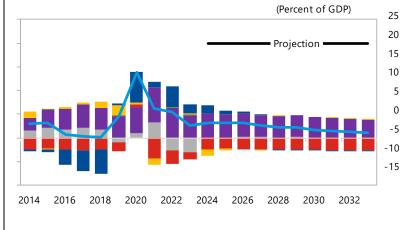


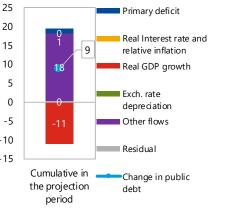


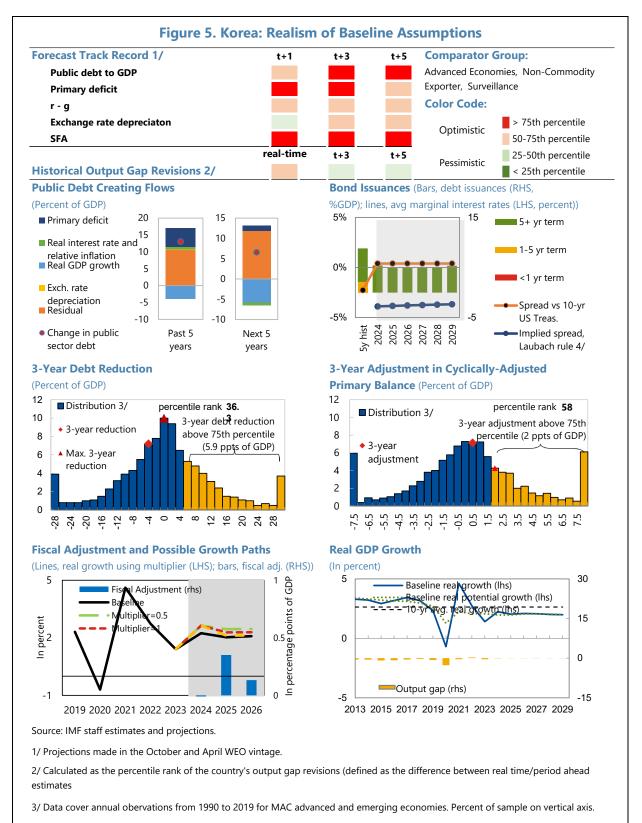
	Actual	Medium-term projection							Extended projection		
-	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Public debt	45.5	46.8	48.0	49.3	50.3	51.2	52.1	52.8	53.4	53.9	54.3
Change in public debt	1.0	1.3	1.3	1.3	1.0	0.9	0.9	0.7	0.6	0.5	0.4
Contribution of identified flows	2.2	1.3	1.2	1.1	0.9	0.9	0.8	0.7	0.6	0.5	0.4
Primary deficit	0.7	0.7	0.3	0.2	0.1	0.0	0.0	0.0	-0.1	-0.1	-0.
Noninterest revenues	21.5	21.3	22.0	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.
Noninterest expenditures	22.2	22.0	22.3	22.3	22.2	22.1	22.1	22.0	22.0	22.0	22.
Automatic debt dynamics	-0.5	-1.5	-1.1	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.
Real interest rate and relative inflat	0.1	-0.5	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Real interest rate	0.1	-0.5	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Relative inflation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Real growth rate	-0.6	-1.0	-0.9	-1.0	-1.0	-1.0	-1.0 .	-1.0	-1.0	-1.0	-1.
Real exchange rate	0.0										
Other identified flows	1.9	2.1	2.0	1.9	1.8	1.8	1.8	1.7	1.7	1.6	1.
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
(minus) Interest Revenues	-1.0	-1.0	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.
Other transactions	3.0	3.0	2.9	2.8	2.8	2.7	2.7	2.6	2.6	2.5	2.
Contribution of residual	-1.2	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.
Gross financing needs	2.5	2.4	2.0	2.1	2.2	2.3	2.6	2.7	2.9	3.0	3.
of which: debt service	2.8	2.7	2.6	2.8	3.0	3.2	3.5	3.6	3.8	4.0	4.
Local currency	2.7	2.6	2.5	2.8	3.0	3.1	3.4	3.6	3.8	3.9	4.
Foreign currency	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.
Memo:											
Real GDP growth (percent)	1.4	2.2	2.0	2.1	2.1	2.0	2.0	1.9	2.0	2.0	2.
Inflation (GDP deflator; percent)	1.9	3.1	2.2	1.8	1.9	1.8	1.9	2.0	1.8	1.8	1.
Nominal GDP growth (percent)	3.3	5.5	4.2	4.0	4.0	3.9	3.9	3.9	3.9	3.9	3.
Effective interest rate (percent)	2.2	2.0	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.

#### Figure 4. Korea: Baseline Scenario

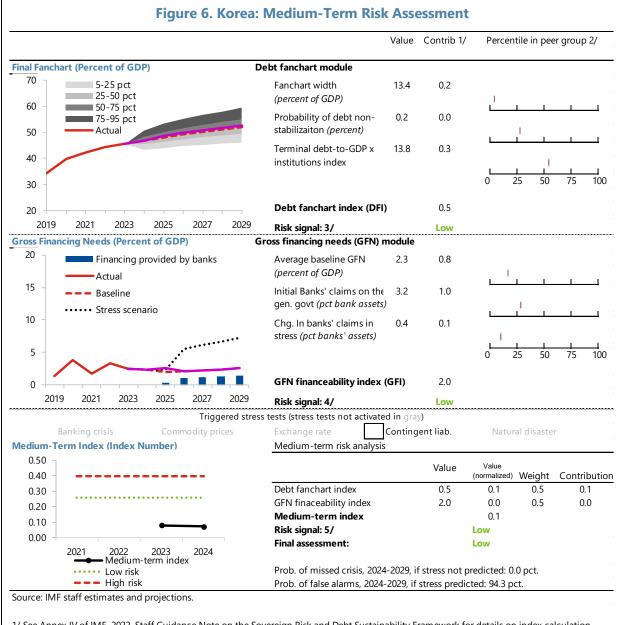
#### **Contribution to Change in Public Debt**







4/ The Laubach (2009) rule is a linear rule assuming bond spreads increase by about 4 bps in response to a 1 ppt increase in the projected debt-to-GDP ratio.



## 1/ See Annex IV of IMF, 2022, Staff Guidance Note on the Sovereign Risk and Debt Sustainability Framework for details on index calculation. 2/ The comparison group is advanced economies, non-commodity exporter, surveillance.

3/ The signal is low risk if the DFI is below 1.13; high risk if the DFI is above 2.08; and otherwise, it is moderate risk.

4/ The signal is low risk if the GFI is below 7.6; high risk if the DFI is above 17.9; and otherwise, it is moderate risk.

5/ The signal is low risk if the GFI is below 0.26; high risk if the DFI is above 0.40; and otherwise, it is moderate risk.

Source of Risk	Likelihood	Impact of Risk	Policy Response				
Global Risks							
<b>Deepening geo-economic fragmentation.</b> Broader conflicts, inward-oriented policies, and weakened international cooperation result in a less efficient configuration of trade and FDI, supply disruptions, protectionism, policy uncertainty, technological and payments systems fragmentation, rising shipping and input costs, financial instability, a fracturing of international monetary system, and lower growth.	High	<b>High:</b> As a highly open economy with close trade and financial linkages to the rest of world, Korea is particularly vulnerable to geoeconomic fragmentation. Reshoring and less trade would reduce potential growth.	Diversify trade markets and supply chains. Advance structural reforms to boost productivity growth.				
<b>Intensification of regional conflict(s).</b> Escalation or spread of the conflict in Gaza and Israel, Russia's war in Ukraine, and/or other regional conflicts or terrorism disrupt trade (e.g., energy, food, tourism, supply chains), remittances, FDI and financial flows, payment systems, and increase refugee flows.	High	<b>Medium:</b> Conflict-related trade disruptions and growth slowdown in key trading partners would affect Korea's exports, damage business confidence, and increase financial market volatility.	Provide targeted fiscal support to vulnerable workers and businesses. In the event of disorderly financial market conditions, apply temporary and targeted market stabilization measures, with safeguards to mitigate moral hazard.				
<b>Commodity price volatility.</b> Supply and demand fluctuations (e.g., due to conflicts, export restrictions, OPEC+ decisions, and green transition) cause recurrent commodity price volatility, external and fiscal pressures and food insecurity in EMDEs, cross-border spillovers, and social and economic instability.	High	<b>Medium:</b> A sizable negative terms of trade shock for Korea as a commodity importer would slow growth and increase inflationary pressures.	Allow public utility companies to pass through international energy prices while providing targeted support to vulnerable groups. Monetary policy should focus on preserving price stability to rein in second-round effects on inflation.				
<b>Cyberthreats.</b> Cyberattacks on physical or digital infrastructure (including digital currency and crypto assets), technical failures, or misuse of AI technologies trigger financial and economic instability.	High	<b>Low:</b> Cyberattacks on critical infrastructure and institutions could lead to concerns about protection of critical data and may result in loss of confidence.	Assess the adequacy of IT risk management and prepare a contingency plan. In case disruptions cause financial and economic instability, provide temporary and targeted support.				
<b>Systemic financial instability.</b> High interest rates and risk premia and asset repricing amid economic slowdowns and elevated policy uncertainty (including from elections) trigger market dislocations, with cross-border spillovers and an adverse macro-financial feedback loop affecting weak banks and NBFIs.	Medium	<b>High:</b> Given close linkages to international financial markets, global financial instability could cause disorderly domestic market conditions and exacerbate vulnerabilities in weak NBFIs.	Provide temporary and targeted support to affected financial institutions, with safeguards to mitigate moral hazard. Prompt resolutions of problematic NBFIs.				

REPUBLIC OF KOREA

Source of Risk	Likelihood	Impact of Risk	Policy Response
<ul> <li>Global growth surprises:</li> <li>Slowdown. Growth slowdown in major economies, including due to supply disruptions, tight monetary policy, rising corporate bankruptcies, or a deeper-thanenvisaged real estate sector contraction, with adverse spillovers through trade and financial channels, triggering sudden stops in some EMDEs.</li> <li>Acceleration. Positive supply-side surprises, monetary easing, productivity gains from AI, and/or stronger EMDE performance raise global demand and trade, and ease global financing conditions.</li> </ul>	Medium	<ul> <li>High: Growth slowdown in major economies would affect Korea's exports and damage business confidence. Disorderly financial market conditions could raise financing costs and increase FX market volatility.</li> <li>High: Stronger global demand would benefit Korean export growth and overall economic activity.</li> </ul>	<ul> <li>Provide targeted fiscal support to vulnerable workers and businesses in case of a contraction in external demand. In the event of disorderly financial market conditions, apply temporary and targeted stabilization measures, with safeguards to mitigate moral hazard.</li> <li>Fiscal policy could take advantage of positive shocks to continue consolidation and build buffers. Monetary policy should preserve price stability and financial policies should limit the impact of excess volatilities of asset prices amid easing of global financing conditions.</li> </ul>
<b>Monetary policy calibration.</b> Amid high uncertainty and data surprises, major central banks' stances turn out to be too loose, hindering disinflation, or too tight for longer than warranted, which stifles growth and triggers increased capital-flow and exchange-rate volatility in EMDEs.	Medium	Medium: Miscalibration of monetary policy by major central banks could complicate domestic monetary policymaking. Misalignment of monetary policy and market expectations could also lead to excessive FX and financial market volatility.	Monetary policy in Korea should focus on preserving price stability. Temporary and targeted financial stabilization measures could be used to maintain financial stability. FXI should only be limited to cases of disorderly market conditions.
<b>Climate change.</b> Extreme climate events driven by rising temperatures cause loss of life, damage to infrastructure, food insecurity, supply disruptions, lower growth, and financial instability. A disorderly transition to net-zero emissions and regulatory uncertainty lead to stranded assets and low investment.	Medium	Medium: Extreme climate events, notably from typhoons, flooding, droughts, heat and cold waves could disrupt economic activity and affect human livelihoods in Korea.	Enhance climate change adaptation and mitigation strategies. Provide targeted fiscal support to affected individuals and businesses.
<b>Sovereign debt distress.</b> Domino effects from high global interest rates, deteriorating debt sustainability in some AEs, unfunded fiscal spending, and/or disorderly debt events in some EMDEs spillover to other highly indebted countries, amplified by sovereign-bank feedback, resulting in capital outflows, rising risk premia, loss of market access, and contraction of growth and social spending.	Medium	<b>Low:</b> Debt distress in some countries could trigger global flight-to-safety and tighten financing conditions, increasing volatility of Korean financial and FX markets.	Provide temporary and targeted support to affected financial institutions, with safeguards to mitigate moral hazard.

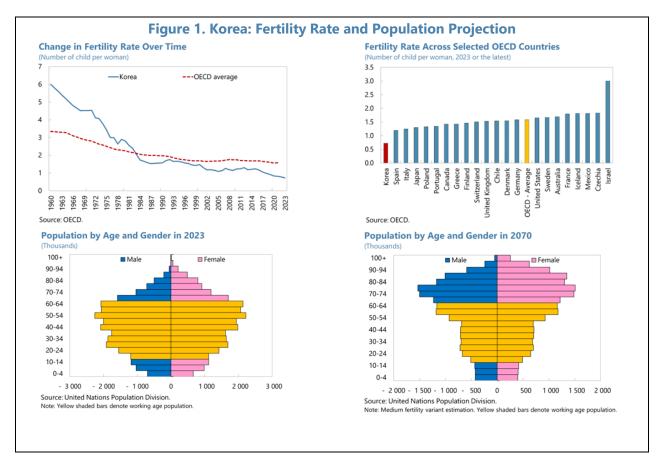
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REPUBLIC OF KOREA

Source of Risk		Likelihood	Impact of Risk	Policy Response				
Domestic Risks								
<b>Political instability</b> associated with the impeachment of the President in the aftermath of his declaration of martial law and prolonged uncertainty could hurt consumer and investor sentiment, further delay progress on structural reforms, and increase domestic policy uncertainty.	High	inst pol and fina	edium: Heightened political tability could increase domestic icy uncertainty, hurt consumer d investor sentiment, increase ancial market volatility, and further ay progress on structural reforms.	A faster pace of monetary easing to support demand and targeted fiscal support to vulnerable workers and businesses in case of severe downturn. In the event of disorderly financial market conditions, apply temporary and targeted stabilization measures, with safeguards to mitigate moral hazard.				
A slowdown of the semiconductor sector potentially due to softening of Al-related demand. A slowdown in Al-related spending would reduce demand for memory chips and weigh on Korea's exports.	Medium	Kor affe bus	edium: Weaker growth of the rean semiconductor industry could ect industrial production, exports, siness confidence, and nufacturing employment.	Allow flexible exchange rates and automatic stabilizers to operate. In case of a larger shock, reduce the pace of fiscal normalization and consider more accommodative monetary policy.				
<b>Rising liquidity and insolvency concerns</b> <b>of weak NBFIs.</b> Lower profitability, higher NPLs, and larger-than-expected restructuring cost from project financing could trigger liquidity stress and insolvencies in weak NBFIs.	Low	mu par	edium: Mutual savings bank and tual credit cooperatives could be ticularly affected, due to relatively her NPLs and lower provisions.	Provide temporary and targeted liquidity support to viable financial institutions, with safeguards to mitigate moral hazard. Prompt resolutions of problematic NBFIs.				

## Annex VI. Addressing Korea's Declining Labor Force<sup>1</sup>

1. Korea's looming decline in labor force due to demographic change poses significant challenges to the long-term prospect of the Korean economy. With the world's lowest fertility rate (0.72 in 2023) and rapid population aging, Korea is projected to become a "super-aged society" starting in 2025.<sup>2</sup> According to the UN's population projection, Korea's population is projected to decline by 17 million (equivalent to 33 percent of its current population) by 2070. The working-age population, which peaked in 2019, is projected to decline to 36.3 million (70.2 percent of total population) in 2024; 34 million (66.4 percent) in 2030; and 16 million (45.8 percent) in 2070. This decline is putting considerable strain on labor supply and hence potential growth of the Korean economy. The resulting surge in the old-age dependency ratio will put pressure on fiscal sustainability. In addition, aging population will change the savings-investment dynamics, resulting in a longer-term impact on neutral interest rate, inflation, and the working of financial institutions.



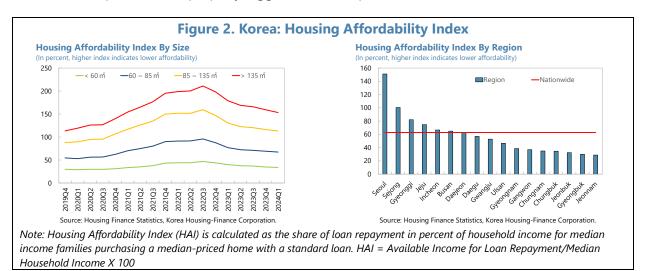
<sup>&</sup>lt;sup>1</sup> Prepared by Inkyung Yoo (BoK), Hua Chai, Hyeryoun Kim, Zexi Sun, and Xin Cindy Xu (All APD).

<sup>&</sup>lt;sup>2</sup> The WHO and UN define a "super-aged society" as a society in which more than 21 percent of the population is 65 years or older.

2. Korea's low fertility rate is the main driver of the expected imminent decline in its labor force. Since falling below the OECD average in 1983, Korea's total fertility rate has continued to decline, reaching a record low of 0.72 in 2023, the lowest in the world. A decline in the marriage rate and a rise in the mean age of marriage, and a rise in the number of married couples without children and a decrease in the average number of children born to a married woman, have all contributed to lower fertility, given that almost 98 percent of childbirths happen inside of marriage in Korea.<sup>3</sup> While the fertility rate has fallen below 1 percent, the average ideal number of children married women desire has remained around the replacement rate of 2.1, suggesting the existence of constraints preventing women from having more children.

3. High costs of raising children and the career penalty for women make it hard for young people to start a family and have children. Korea's elevated housing prices, limited availability of quality childcare, and high private education spending have increased the financial burden on young people. Poor work-life balance and high career opportunity cost for women have also discouraged women from getting married and having children.

High housing cost. The heavy financial burden associated with housing has discouraged young people to get married and have children. As of 2024Q1, it is estimated that median income families spend about 63 percent of household income for loan repayment of a median-priced home.<sup>4</sup> The ratio is notably higher in the Seoul Metropolitan Area (151 percent), where the best jobs and education institutions are concentrated, and for larger living spaces needed to raise a child (153 percent for a property bigger than 135 square meters).



• Limited availability of quality childcare. Due to the lack of high-quality private institutions, the limited public childcare facilities are in high demand. Workplace childcare

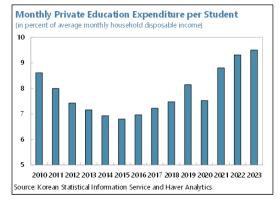
<sup>&</sup>lt;sup>3</sup> The rate of singlehood among women aged 25-49, which was only 8.0 percent in 1990, jumped to 32.9 percent in 2020. The share of children born outside the wedlock is 3.9 percent in 2022, compared to the OECD average of about 40 percent.

<sup>&</sup>lt;sup>4</sup> As per the estimates of Korea Housing Finance Corporation.

services are also highly sought after but are only mandatory for large companies, leaving many employees without access to workplace childcare. In addition, different ministries managing kindergartens (ages 3–5) and daycare centers (ages 0–5) have resulted in inconsistent quality of care and unequal access for parents (Kim, 2023). Relatively short regular instructional hours in elementary schools in Korea (655 hours per year) compared to the OECD average (805 hours) result in earlier school dismissal times than daycare centers or kindergartens putting a burden on parents (especially mothers) to deal with this childcare gap.

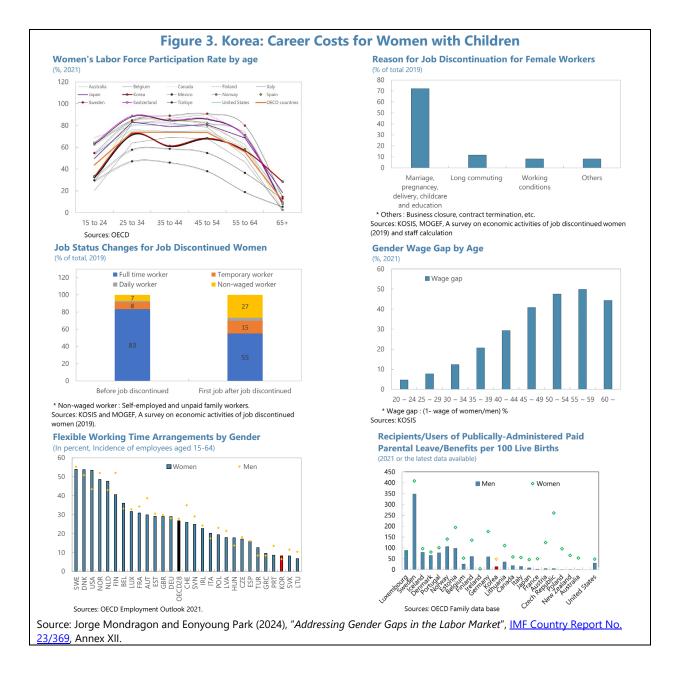
• **High private education costs**. Korea's high private tutoring participation rates largely reflect

fierce competition to enter prestigious universities. Given labor market duality and competition for quality jobs, graduates from top universities are much more likely to secure a high-paying job. A significant portion of parent's income is thus spent on private tutoring. In 2023, 78.5 percent of Korean primary and secondary school students took private tutoring (Ministry of Education, 2024). Monthly average expenditure for private



tutoring per student relative to household disposable income has increased sharply since 2015, reaching KRW 434 thousand, roughly 10 percent of average household disposable income in 2023. Empirical analysis suggests that prevalence of private tutoring is negatively associated with country-level total fertility rate (Anderson, 2018).

Career costs for women. Korean women face a high cost of career disruption after childbirth. A significant share of Korean women leaves labor market during prime age, especially during age 35- 44, primarily because of childbirth. Korea's rigid labor market with high duality and a seniority-based wage structure discourages returning mother to go back to a full-time job. As a result, returning female workers account for much less in full time jobs post-childbirth compared to before job discontinuation. Therefore, having a family and child results in a significant increase in the gender wage gap after prime working age, a big disincentive for women with jobs to have babies. Long working hours, inflexible schedules, and limited use of telework in Korea also make balancing career and childcare responsibilities extremely challenging for women. Despite more generous parental leave benefits, parents in Korea take much less leave than peers, especially among fathers (2023 Korea Article IV Report, Annex XII).



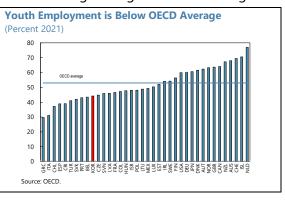
**4. Employment and income insecurity has led to delayed marriages and lower childbirth**. Low youth employment and relative scarcity of high-quality job opportunities outside of large corporations have diminished income prospects of young people, and delayed family formation and childbirth due to limited financial resources.

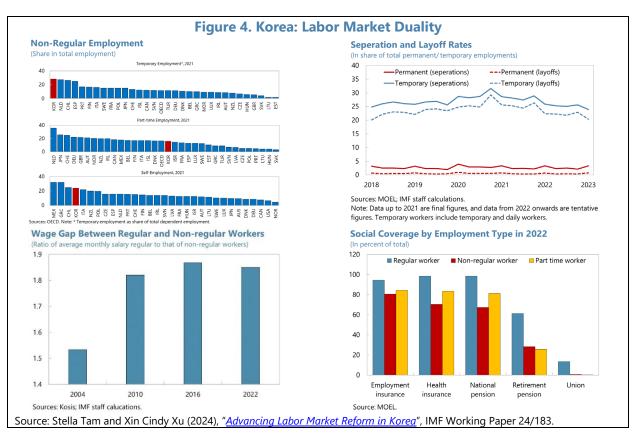
• **Relatively low youth employment**. Korea's youth employment rate has been significantly below the OECD average due to low youth labor force participation. Korea's youth labor force participation rate (31 percent in 2022) was well below the OECD average (46.7 percent).

A large share of youth postpones their careers in order to land jobs in large firms or professional jobs, as reflected by a high rate of NEETs (Neither in Employment nor in Training) for tertiary graduates, estimated at 20.9 percent in 2020 for the 15–29-year-old group.

• **High labor market duality**. The Korean labor market is fragmented into regular and non-regular workers. The share of non-regular workers is among the highest in OECD. Regular

workers enjoy better job security, more social benefits, and higher wages than non-regular workers (Figure 4). Empirical analysis suggests that regular employees have a 1.65 times higher probability of marriage and an approximately 2 times higher probability of childbirth than non-regular employees, controlling for individual characteristics like education level, residential area and industry (FKI, 2022).



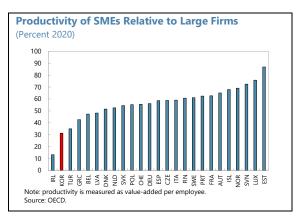


• **Scarcity of quality employment**. The productivity gap between SMEs and large firms in Korea is among the highest in OECD countries, translating into a substantial wage gap between SMEs and large firms.

In the meantime, employment in SMEs (85 percent of employment) is relatively high compared to the OECD average, meaning a large portion of the workforce is employed in lower-paying jobs. Consequently, quality jobs with high wages and a favorable work-life balance are relatively scarce in Korea, especially for young people as first-time job seekers. The lack of access to quality employment opportunities discourages them from starting families.

## 5. Korea has introduced several policies to tackle the low fertility rate and, more recently, have started taking steps to enhance their effectiveness. With a sense of urgency, the Korean

government has been trying to tackle low fertility and rapid aging issues since 2005, implementing the Five-Year Basic Plans by the presidential committee under the Framework Act on Low Birth Rate in an Aging Society. While Korea has expanded family spending from 0.5 percent of GDP in 2006 to 1.5 percent of GDP in 2020 and adopted several supportive systems including longer parental leaves and more childcare facilities, the government expenditure on family support is still below the OECD average of 2.1 percent, with usage and the



quality of systems remaining low. In 2024, declaring the population crisis as a "national emergency", the authorities stepped up policy efforts by establishing a new ministry for improving policy coordination, restructuring the family budget, promoting work-life balance toward the average level of AEs, reducing childcare burden by improving the public childcare and education system, and strengthening housing support to facilitate marriage and childbirth.

Childcare	Work-family balance	Housing and Jobs
<ul> <li>Cash subsidies for pregnancy and childbirth-related expenses (2008)</li> <li>Coverage of infertility treatments under public health insurance (2017)</li> <li>Child allowance (2018)</li> <li>Expansion of public childcare facilities</li> <li>After-school care programs for elementary student (2018)</li> <li>"First Encounter Vouchers" for newborn baby (2022)</li> <li>Infant allowance (2023)</li> </ul>	<ul> <li>Extended maternity leave benefits (30-&gt;90 days, 2006)</li> <li>Family-friendly company certificate system (2008)</li> <li>"Father's Month" with one month of parental leave at 100 percent of regular wages (2014)</li> <li>Child support payments for women not covered by employment insurance (2019)</li> <li>Both parents paid parental leave (2022)</li> </ul>	<ul> <li>Framework Act on Youth (2020)</li> <li>Expansion of youth's access to homeownership by providing affordable housing</li> <li>Asset-building support programs for young people</li> <li>Youth employment subsidies for SMEs</li> </ul>

### 6. Comprehensive reforms are needed to alleviate economic constrains that hold back

**Korea's fertility rate**. Reversing the trend decline of the fertility rate requires a more comprehensive set of structural reforms to alleviate economic constraints that discourage marriage, delay childbirth, and prevent young people from having their desired number of children. These

reforms include policies aimed at reducing the costs of housing and education, providing well-target support to families, tackling labor market duality, reducing gender wage gap, increasing work flexibility, and improving income prospects of the youth.

7. Increasing public support for families to make childrearing more affordable is important to boost fertility. Despite significant improvements, Korea's public family spending accounted for 1.5 percent of GDP in 2020, much lower than the OECD average of 2.1 percent. There is still room to increase the public family spending to lower the cost of raising children through reducing education expenses, increasing quality and accessibility of childcare services, extending maternity and parental leave benefits, and raising family allowances. Increasing housing supply in the Seoul Metropolitan Area through easing supply side restrictions by further loosening regulations of reconstruction and redevelopment, and repurposing commercial land to residential usage in urban areas, as well as providing more social housing would help reduce housing market imbalances and improve housing affordability.

8. A more flexible and family-friendly labor market would help reduce career penalty associated with childbirth for women. Tackling labor market duality, promoting performance-based pay, and improving job mobility would encourage women to continue their career after childbirth. Expanding the use of teleworking and flexible working-time arrangements could support better work-life balance for young couples. Increasing the role of fathers' in supporting families, including through stronger incentives for paternity leave take-up, is also important to reduce the childcare burden on working women.

9. Increasing income prospects of the youth by improving the performance of SMEs and tackling labor market duality is essential to encourage family formation and childbirth.

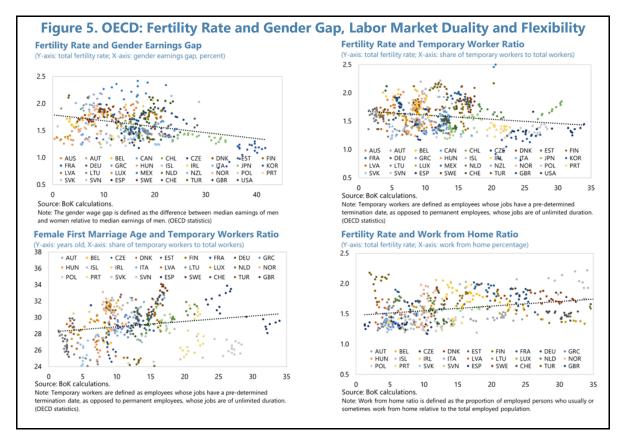
Improving the performance of SMEs, which account for 85 percent of employment in Korea, will help generate more quality jobs by raising productivity and wages. Instead of providing support solely based on firm size and for the survival of firms, government support for SMEs should be linked to their ability to improve productivity and potential to generate long-term profitability and employment. Staff welcomes the measures being taken and planned to address this issue, including reducing support for inefficient projects, reassessing projects based on evolving social and economic conditions, and taking a holistic approach to the allocation of various support. The education system reforms to reduce labor market mismatch will help SMEs attract talents and also help reduce education and associated costs.

**10.** These reforms have the potential of bringing tangible improvements in the fertility rate. Empirical analysis based on panel data of 35 OECD countries suggests that effective policies resulting in improvements in public family-related spending, parental leave take-up and youth employment from current levels to OECD averages could lead to increases in fertility rate (Table 2)<sup>5</sup>. A 0.2 increase in the fertility rate is likely to lead to an increase of 0.1 percent in the potential growth rate during the 2040s. Cross-country analysis illustrates that from 2002 to 2021, 35 OECD countries

<sup>&</sup>lt;sup>5</sup> For detailed methodology of the scenario analysis, see Hwang et al, (2023).

have shown a negative correlation between the gender earning gap and fertility, and between the ratio of temporary workers and fertility, while 26 European countries within the OECD have demonstrated a positive correlation between the ratio of workers who work from home and fertility. Thus, reducing gender gap, duality, and rigidities in the labor market could help address low fertility rate (Figure 5)

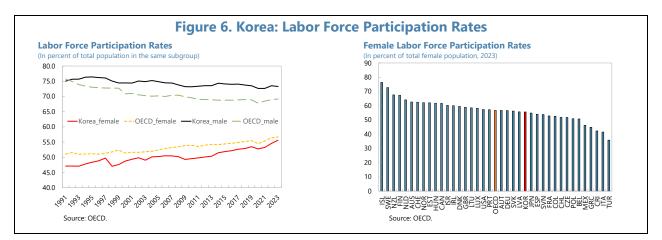
Table 2. Korea: Estimated Improvements in the Fertility Rate						
	Korean level	OECD average	Fertility gain			
Public spending on family benefits	1.4 percent of GDP	2.2 percent of GDP	0.06			
Length of parental leave used	10.3 weeks	10.3 weeks 61.4 weeks				
Youth employment rate	58 percent	67 percent	0.12			
Real housing price	Decrease from 2019 to 2015 level (-3.8 percent) 0.002					
Source: The Bank of Korea.			•			



# **11.** Increasing labor force participation, raising the retirement age, attracting foreign talents, and enhancing labor productivity would help address the declining labor force. Given that positive effects of fertility policies on the labor force only materialize two or three decades after implementation, it is important to mitigate the decline in labor force in the short and medium term.

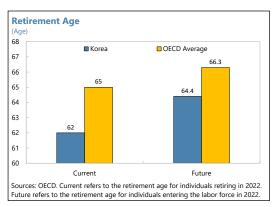
12. Increasing female labor force participation would be important to mitigate the decline

**in labor force in the near and medium term**. Substantial efforts have already been made in improving the work environment for women, facilitating a marked rise in FLFP. Despite recent improvements, Korea's female FLFP rate is still low compared with OECD peers. Social norms place heavy household and childcare burdens on women, which in conjunction with high labor market rigidities, have discouraged FLFP in Korea. A recent IMF analysis on Korea estimates that reducing severance payments for regular workers (which eases dismissals and facilitates labor reallocation for both men and women) by 30 percent alone can significantly increase FLFP and productivity growth (by 0.9 and up to 0.5 percentage point, respectively). The productivity gains could be further increased if complemented with measures to support career development and facilitate job mobility for women.<sup>6</sup>



### 13. Raising the retirement age can address labor force decline through several channels.

Staff welcomes the authorities' planned reform to raise the retirement age to 65 by 2033. However, despite this increase, Korea's retirement age will remain below the OECD average. Increasing the retirement age will directly help mitigate the declining labor force. It is also essential for enhancing the fiscal sustainability of the pension fund, thus creating more fiscal space for public spending to address low fertility rates.

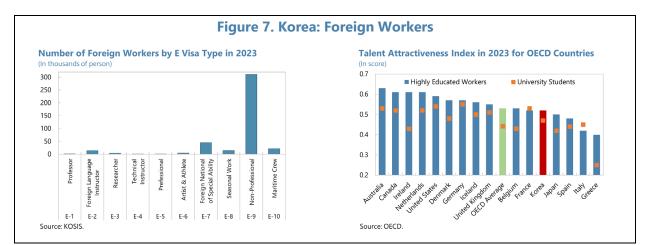


## **14.** Attracting foreign talents would help ease demographic pressures. The total number of foreign

workers has increased substantially over time but remains limited compared to other OECD economies, and most of them are low-skilled. The inflow of skilled migrant workers can offset a decline in labor force and enhance productivity by fostering innovation and patenting activity (Bernstein et al., 2022; Mayda, Orefice and Santoni, 2022). Although the government has promoted

<sup>&</sup>lt;sup>6</sup> See Annex XII. Addressing Gender Gaps in the Labor Market in <u>IMF Country Report No. 23/369</u> for a detailed analysis of the productivity and output gains from reducing the gender gap in Korea.

employing skilled foreign workers by expanding the relevant visa quota, further efforts are needed to attract qualified foreign talents. Streamlining the transition from the temporary low-skilled labor status (E-9 visa) to the skilled and long-term worker status (E-7 and F-2) could be considered, given that many E-9 holders already possess higher education. Furthermore, it is important to capitalize on Korea's growing appeal to international students by increasing internship and job opportunities and easing immigration norms. Addressing structural challenges that have hindered family formation and female labor force participation, such as high housing and private education costs, inadequate access to quality childcare services, and labor market duality, would also help improve Korea's attractiveness to foreign talent.



### 15. Enhancing labor productivity can compensate for the decline in the labor force.

Encouraging more widespread use of digital technologies especially in SMEs, including the adoption of Artificial Intelligence, will increase labor productivity. Continued public support for R&D spending is critical for sustained increases in productivity. Supporting the upskilling and reskilling of employees will equip them with new skills to adapt to the evolving workplace in an age of rapid technological advances. Promoting the health and work-life balance of workers can also increase labor productivity by enhancing their well-being and reducing stress and burnout. Finally, strengthening social safety nets will enhance productivity by providing workers with security and stability.

16. To tackle the declining labor force and adapt to aging society, comprehensive reforms should be introduced with a long-term perspective. Further efforts to alleviate economic constraints driving Korea's low fertility rate, including through reducing high costs of raising children (education, housing, and career costs for women) and raising income for youth are needed. In the interim, increasing female labor force participation and attracting foreign talents would help ease demographic pressures. Meanwhile, adapting to an aging society would require fiscal structural reforms to create space for aging-related spending needs. Policy priorities include adopting fiscal rule to anchor public finances, reforming the pension system to ensure its sustainability, and increasing revenue mobilization to create fiscal space.

### Box 1. Germany's Vocational Education and Training (VET) System and Youth Employment

**The experience of Germany's VET programs may be helpful in addressing high NEET rates in Korea.** With well-established vocational education, Germany has achieved not only a higher youth Employment rate, 60.1 percent among aged 15-29 than 53 percent of the OECD average in 2021, but also a lower NEET rate, 8.6 percent among aged 15-29 compared to 14.7 percent of OECD average in 2022. The experience of Germany could help Korea tackle the issue of low youth employment (44.2 percent) and high NEET rate (20 percent).

Germany's VET programs, especially dual apprenticeship models, has boosted employment, increased youth income, and created a highly trained workforce to support the economy. Two key elements of the German VET program are dual apprenticeship programs and full-time VET schools. As of 2021, 88 percent of age 15-19 students were enrolled in the upper secondary school and among them 47 percent were enrolled in VET programs. The main program of the upper secondary VET is a dual apprenticeship programs, which combined school-based learning with work-based learning with an employer. The dual VET follows a market-based approach, where employers offer apprenticeship based on the skill needs of the industry. In Germany, 89 percent of vocational upper secondary students are enrolled in this combined program. SMEs play an important role in the dual system, offering a training place to around 90% of all apprentices, A full-time VET school is a fully school-based training, which might offer an internship within a program for two or three years based on a close cooperation between the authorities, employers, and VET schools. The effectiveness of Germany's VET programs is by the very high employment rates of the graduates in the two years following their graduation, which at 94 percent is the second highest in OECD. Young adults aged 25-34 with vocational upper secondary attainment earn 67 percent more than those without upper secondary educational attainment in Germany. With a support system for the early determination of career paths as well as a flexible education system, active engagement of companies has been a key part of the success of the programs.

**Promoting the work-learning dual system in upper secondary education would encourage young people to participate in the labor market and help meet SMEs labor demand in Korea.** Korea has introduced VET systems to revitalize school-industry links, including Meister High Schools, aimed at providing tailored curricula directly connected to the demand of industry for development of professional vocational education. While the school program is based on the German practice, there are rooms to improve further given low enrollment rate (1.5 percent of high school students) and employment rate after graduation (73.3 percent) in 2023. The authorities' effort to expand the designation of Meister schools from 54 in 2022 to 65 by 2027 is welcome. Offering quality jobs by early engagement of employers, including SMEs, is needed to enhance enrollment and employment after graduation.

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### Annex VII. Corporate Value-Up Reform<sup>1</sup>

**1.** Korean companies listed in the stock market have lower valuation than global peers.

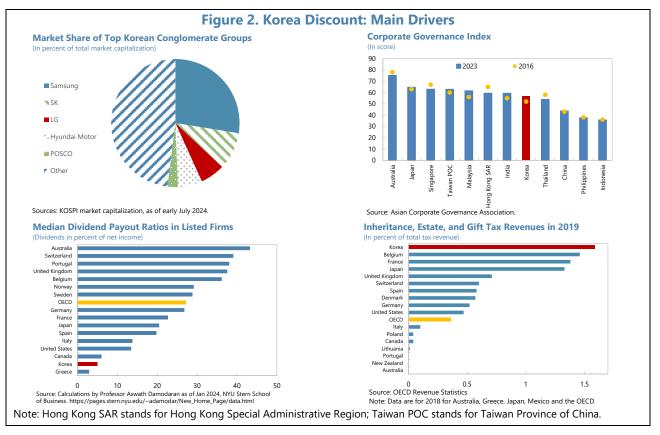
The price-to-book and price-to-earnings ratios of Korean listed firms are the lowest amongst advanced economies, a long-standing phenomenon known as the "Korea Discount". This undervaluation could limit the ability of Korean companies to attract necessary capital for business expansions and R&D investment. Closing the valuation gap would improve Korean companies' attractiveness to investors and enhance their global competitiveness, with positive spillovers to employment and growth.



2. Key drivers behind the "Korea Discount" include corporate governance issues,

**inheritance tax burden, and geopolitical risks**. One commonly cited reason in literature (<u>OECD</u>, <u>2018</u>; <u>ACGA</u>, <u>2024</u>) is the dominance of large family-owned conglomerates ("Chaebols") in the Korean stock market, with weak governance structure that undermines interests of minority shareholders. Controlling stakeholders often prefers keeping capital within the company, resulting in low dividend payouts. In addition, a high level of inheritance tax in Korea – top rate at 65 percent for those with assets more than KRW100bn – also create incentives for companies undergoing intergenerational wealth transfer to retain cash and suppress valuations (Figure 2). Geopolitical risks involving North Korea might have also contributed to the "Korea Discount".

<sup>&</sup>lt;sup>1</sup> Prepared by Xin Cindy XU (APD)



### 3. The Korean government has introduced a new "Corporate Value-Up Program" (CVU) to

**tackle the "Korea Discount" issue**. The program, announced in February 2024, includes a comprehensive set of measures, aimed at supporting a virtuous cycle for capital market growth through: i) guidelines to encourage companies' self-disclosure of plans to enhance corporate value, including through adoption of higher corporate governance standards; ii) tax measures, including ease of inheritance taxes, capital gain tax cuts for retail investors, and corporate tax deductions for companies that successful raise shareholder returns; iii) investment incentives, including a new "Korea Value-up Index", "Index-linked ETF", and application of the Stewardship Code for easier access to institutional investors; and iv) dedicated support system, including web portal and training services.

Table 1. K	Corea: Corporate Value-Up: Proposed Tax Measures			
	Cut the inheritance tax's top rate from 50% to 40%			
Ease of inheritance taxes	Eliminate the 20% surcharge on controlling stakes in large firms			
Ease of innentance taxes	Raise the minimum 10% inheritance tax threshold from KRW0.1bn to KRW0.2bn			
	Increase the child deduction limit from KRW0.05bn to KRW0.5bn per child			
	Abolish the financial investment income tax on retail investors before the			
	scheduled implementation from January 2025			
Capital gain tax cuts	Raise the size of allowance for individual savings accounts for larger tax benefits			
	of broad retail investors			
	Cut capital-gains tax for retail investors who receive larger dividends			
Corporate tax deductions	Corporate tax deduction equivalent to 5% of increased shareholder returns for			
Corporate tax deductions	companies successfully raised shareholder returns			
Source: The Korean authorities, proposal as of July 25, 2024.				

### 4. Measures to enhance information disclosure and boost shareholder returns are

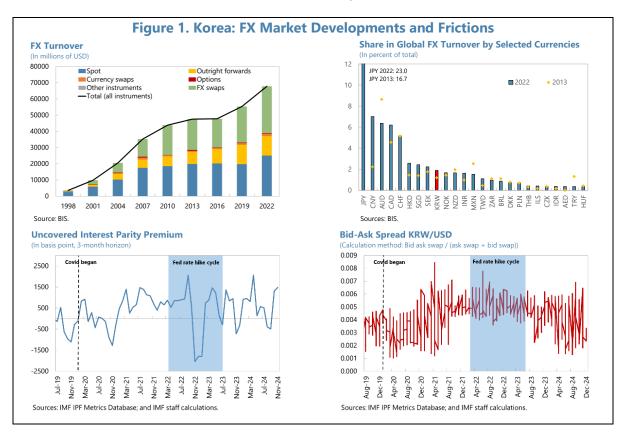
**welcome**. New guidelines and support system for companies to voluntarily disclose their value-up plans would enhance transparency and facilitate communication with investors. As of mid-November 2024, 68 companies (2.6 percent of Korean listed companies) have disclosed their target CVU strategy, and another 30 companies have indicated intentions to disclose by end-2024 or early 2025. Given the highest inheritance tax rate in OECD, the first reform of inheritance tax since 1997 could help, to some extent, reduce incentive misalignments between controlling shareholders and minority investors. The tax support plan was recently rejected by the National Assembly. Investment incentives might also encourage companies to raise shareholder returns and attract more capital into good performing companies. In September 24, 100 companies were selected for the value-up index, and 13 index-linked ETPs (exchange-traded products) were rolled out in November 2024. While it is still too early to assess the market impact of the reform, the overall direction and commitment to raise shareholder returns were welcomed by market participants.

5. That said, further efforts to effectively improve corporate governance are needed over

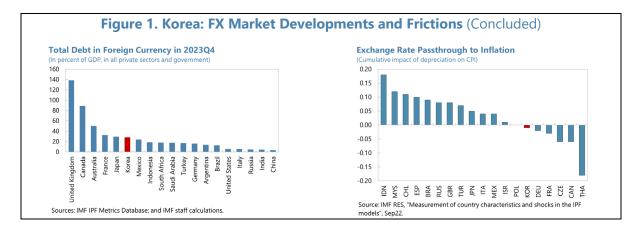
**the longer term**. As evidenced by the Japanese example, corporate governance reforms take time to generate tangible gains. Japan has introduced several rounds of corporate governance reforms since 2013 that gradually took effect over the past decade. Key initiatives introduced in Japan, including the Corporate Governance Code, Stewardship Code, and the value-up index (JPX prime 150) are also covered in the Korean CVU program. Steps were also taken to encourage share buybacks, lower cross-holdings, and increase dividends. But tax incentives were not a major focus of the Japanese reform. While in the short run, tax measures might help boost market valuations of selected companies, their long-term effects on shareholder returns remain unclear, barring fundamental measures to improve corporate governance. A careful review of tax incentives is warranted to assess the potential benefits (to increase shareholder returns) and costs (to fiscal sustainability and income equality), while ensuring a market-driven price discovery.

### Annex VIII. FX Market Reforms<sup>1</sup>

1. Normally deep and liquid Korean foreign exchange (FX) market has experienced high volatility during periods of heightened global financial market uncertainty. In the past decade, FX market liquidity has increased significantly, with daily average market turnovers rising from 4.7 percent of GDP in 2013 to about 8.2 percent of GDP in 2022. The FX market depth is higher than most emerging markets, but it still lags several advanced economy peers. However, in periods of high global financial market uncertainty, there could be herding behavior amid temporarily shallow markets, leading to sharp FX movements and impaired market functioning. The bid-ask spread and the UIP premium, while largely low and stable, spiked during the global financial crisis, the COVID-19 outbreak, and recent Fed hiking cycles. That said, exchange rate flexibility has served Korea well, and exchange rate volatility generally does not pose significant macro-financial challenges for Korea. Currency mismatch risk is limited, with a low level of FX debt. The exchange rate passthrough to consumer prices is manageable with a well-established monetary policy framework and well-anchored medium-term inflation expectations.



<sup>&</sup>lt;sup>1</sup> Prepared by Hyeryoun Kim (APD)



2. Korea has maintained certain restrictions in onshore FX market for decades due to the historical crisis trauma despite capital market deepening. Foreign financial institutions were not allowed to directly participate in the onshore interbank FX market even though deliverable KRW is traded only in the onshore FX market. Trading hours in the onshore FX market have been restricted. As a result, although Korea's trade and the capital market have significantly grown since Asian Financial Crisis, onshore FX market liquidity has not increased accordingly, and FX transactions have relied more on offshore NDF market, holding back the onshore FX market deepening and making Won-denominated assets less attractive to foreign investors.

### 3. To mitigate FX market volatility and improve global investors' accessibility, the

**authorities have implemented a range of FX market reforms in July 2024**. The reforms include i) opening up the onshore interbank FX market to the registered foreign financial institutions such as permitting to buy and sell deliverable FX spots and forwards; ii) extending onshore trading hours from 09:00 am-15:00 pm to 09:00 am -02:00 am of the following day (KST); iii) developing market infrastructure to be in line with global FX markets, such as third-party FX settlement and electronic trading. The authorities are carefully monitoring the impact of these reforms and plan to adjust the regulatory system, if necessary, to ensure that these reforms do not act as a source of instability in the FX market. In the first four months after the reform, daily FX turnover has increased by 13 percent (y/y) and by 40 percent more than the average of past 5 years.

	Before	After
•	Foreign financial institutions not allowed to participate in the onshore interbank FX market.	<ul> <li>Registered foreign financial institutions allowed to directly participate in the onshore FX market.</li> </ul>
•	FX trading hours limited to 09:00-15:30 (KST). Non-residents can only conduct FX trade with banks where they have their own settlement accounts.	<ul> <li>Trading hours extended to 09:00-(+1) 02:00 (KST) and eventually will be open for 24 hours.</li> <li>Foreign investors are allowed to directly conduct FX transactions with banks without settlement accounts.</li> </ul>
		<ul> <li>Electronic trading infrastructure will be enhanced through the adoption of application programming interface and aggregator service.</li> </ul>

### 4. The FX market reforms will enhance the resilience and efficiency by deepening the

**currency market.** By opening-up of the onshore market to foreign financial institutions and extension of trading hours, onshore FX market liquidity is expected to increase, thereby contributing to exchange rate stability. These FX reform measures, coupled with ongoing capital market reforms, have contributed to the recent inclusion in the World Government Bond Index (WGBI) this October and would help improve the prospect of Korea's inclusion in the Morgan Stanley Capital International (MSCI) developed market index.<sup>2</sup> Korea is expected to attract new foreign capital inflows to the fixed income market of around \$60 billion from the inclusion in the WGBI and additional inflows to the equity market if successfully enrolled in the MSCI developed market index.<sup>3</sup> Going forward, it is important to continue to eliminate discriminatory treatments between foreign and domestic financial institutions and gradually minimize costs related to foreign institutions' registration and reporting obligations.

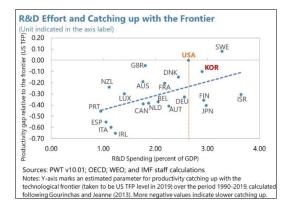
<sup>&</sup>lt;sup>2</sup> Some of the key capital market reforms underway include (i) improving corporate governance, (ii) simplifying identification-related regulations for foreign investors and reporting requirements, (iii) expanding OTC transactions for ex-post reporting, and (iv) establishing laws and systems to remove the ban on short sales.

<sup>&</sup>lt;sup>3</sup> Korea's weight in the WGBI index is estimated at around 2.22 percent out of over \$2.5 trillion of global assets under management tracking the WGBI. Korea's inclusion in the MSCI developed market index could attract inflows ranging from \$5 billion to \$36 billion, according to estimates by <u>Korea Capital Market Institute (2022).</u>

### Annex IX. Productivity Drivers in the Korean Economy: The Role of Allocative Efficiency<sup>1</sup>

1. Korea has achieved impressive catching up with the global knowledge and technology frontier over the last few decades. Consistent R&D efforts enabled the Korean economy to close the total factor productivity gap (TFP) with the US, ranking as one of the top 5 economies in R&D spending as a share of GDP (Figure IX.1).

## 2. While TFP growth contributed steadily to growth since the 1980s, its contribution started to fade since the 2010s despite continued investments

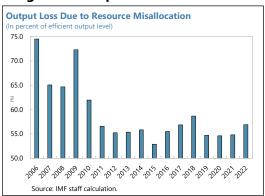


**in R&D**. Annual TFP growth averaged around 2.3 percent over the period 1981-2010, contributing about a third of overall growth during this period. It has since declined to only 0.6 percent in 2011-2019 (Cho 2023).

**3. Given Korea's demographic challenge, addressing the decline in TFP growth is crucial to reignite growth**. To achieve this, it is important to dissect the determinants of productivity at the micro level in recent years, both in manufacturing and services. Part of TFP growth is attributed to *within-firm* productivity gains coming from innovation, technological progress and modern management practices. An important complementary driver of aggregate productivity growth is improved resource allocation *across firms* as capital and labor move freely to more productive firms. The latter increases overall "allocative efficiency" in the economy (Restuccia and Rogerson 2008).<sup>2</sup>

### 4. Allocative efficiency in the Korean economy saw significant improvement over the

**period 2006-2015.** Firm-level evidence suggests that output losses—in percent of the efficient level output—stood at 52.9 percent in 2015, compared to 74.5 percent a decade earlier. By the end of the sample period in 2022, output losses edge up to around 57 percent (Figure IX.2). Despite the overall improvement since 2006, the results imply a large deviation from the level of output that could be realized if there were no distortions preventing the free movement of labor and



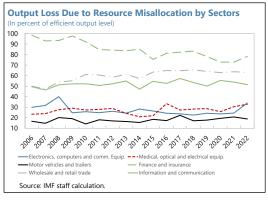
<sup>&</sup>lt;sup>1</sup> Prepared by Diaa Noureldin (RES).

<sup>&</sup>lt;sup>2</sup> Recent cross-country evidence suggest that allocative inefficiencies can exert a drag on TFP growth, and policies aimed at addressing those inefficiencies could well reverse declining productivity growth in both advanced and emerging market economies (see Chapter 3 of the IMF *World Economic Outlook*, April 2024).

capital to higher productivity firms.<sup>3</sup> Tax and subsidy distortions, labor market rigidity, financial frictions, and excessive regulation are all potential factors that could stunt the flow of resources to higher-productivity firms.<sup>4</sup>

5. The economy-wide deviation from the efficient, distortion-free level of output is

driven primarily by the service sectors. The evidence shows that sector-level deviations from efficient output are more pronounced in services, with Finance and Insurance, Wholesale and Retail Trade, and Information and Communications showing notably high deviations (Figure IX.3). Other service sectors—such as construction, transportation, and business support services—also exhibited low efficiency, with losses averaging between 48 and 56 percent over the sample



period. In contrast, manufacturing sectors exhibited markedly higher efficiency levels.<sup>5</sup>

6. The improvement in economy-wide allocative efficiency over the sample period reflects increasing allocative efficiency in services. This can be seen in the text figure in 131, showing the gradual rise in allocative efficiency in services. While some services sectors showed a deterioration in allocative efficiency over this period, this was more than countered by an improvement in other sectors. For example, Finance and Insurance, which has a large share in total value added, showed a notable improvement.

7. Changes in allocative efficiency over time translate into corresponding changes in TFP growth. Over the period 2011-2022, the improvement in allocative efficiency translated into an average annual TFP growth of about 1 percentage point. Noting that annual TFP growth recorded 2 percent over the period 2001-2010, then decelerated to 0.6 percent during the period 2011-2019

<sup>&</sup>lt;sup>3</sup> Following the approach of Hsieh and Klenow (2009), the analysis utilizes firm-level data on value-added, capital stocks and employment, where allocative efficiency is first measured at the sector level, then aggregated to an economy-wide measure using the value-added shares for each sector. The analysis is based on data from the 2022 Survey of Business Activities covering the period 2006-2022.

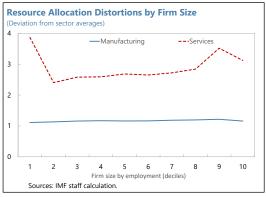
<sup>&</sup>lt;sup>4</sup> Oh (2016) conducts a similar exercise on Korean manufacturing firms for the period 1990-2012 using data from the Korean Survey of Mining and Manufacturing establishments. The level of efficiency losses in manufacturing firms calculated in this Annex stands at about 26 percent of efficient output during the period 2006-2022, on average, compared to 35 percent over the period 1990-2012 reported in Oh (2016).

<sup>&</sup>lt;sup>5</sup> The analysis includes 22broad economic sectors: Food, Textiles, Wood Products, Chemical Products, Pharmaceuticals, Rubber and Plastics, Basic Metals, Electronics and Computers, Medical and Electrical Equipment, Other Machinery, Motor Vehicles and Trailers, Other Transportation Equipment, Furniture, Construction, Wholesale and Retail Trade, Transportation and Storage, Hospitality, Information and Communication, Finance and Insurance, Real Estate, Professional Services, and Business Support Services. The analysis excludes non-market sectors, namely Utilities, Public Administration, Education, and Arts.

(Cho 2023), the improvement in allocative efficiency helped in sustaining overall positive TFP during the last decade.<sup>6</sup>

### 8. The evidence suggests that distortions tend to be disproportionately higher for firms

in services, consistent with the higher efficiency losses seen in this sector. Within services, both small firms and larger ones are subject to higher distortions to efficient allocation (Figure IX.4). For smaller firms, while they benefit from state support under various programs, they are also subject to a heavy regulatory burden compared to larger firms. At the same time, higher distortions in larger services' firms and the implied lower efficiency level could partly explain why Korea has lower service exports (in percent of GDP) compared to peers.



### 9. Larger inefficiencies in the service sectors warrant a streamlining of regulations.

Relative to manufacturing, the service sector is much more heavily regulated. This is particularly visible in network sectors such as electricity, gas, telecom, postal services, rail, airlines and road transport (OECD 2016). Also, previous IMF work has shown sizable sector-level productivity gaps between Korea and other OECD economies, especially in market-oriented services (Swiston and Tam 2022). While the stringency of product market regulations in Korea—relative to the OECD average—has improved in recent years, there is scope for further improvement. Regulatory reforms should aim for lowering barriers to entry, reducing startup costs, and simplifying complex licensing requirements. Reforms should also target a further reduction and streamlining of regulations to trade and investment, as well as limiting state involvement in business operations.

**10. Reducing distortions at the level of SMEs would boost aggregate efficiency levels**. The firm size distribution in Korea is skewed towards SMEs and they employ the majority of the workforce. They are also responsible for sustaining expansions in new employment. Given that SMEs are concentrated in low-productivity activities (OECD 2024), this suggests that, over time, average labor productivity is likely to decline further, prompting an urgent need to devise a strategy to revive productivity growth in SMEs. While SMEs benefit from state support under a plethora of different programs, they are also subject to a heavy regulatory burden compared to larger firms.<sup>7</sup>

<sup>&</sup>lt;sup>6</sup> It is important to note that trends in TFP growth over time also reflect the long and variable lags of innovation effort, and that changes in business dynamism—related to market entry and exit rates—may also influence TFP growth. The analysis does not rule out a role for these factors in explaining the recent deceleration in TFP growth. Furthermore, a decline in measured allocative efficiency could be a signal of positive churn in the economy in reaction to positive productivity shocks and the arrival of new technologies. Since economies need time to adjust to these shocks, and also for capital and labor reallocation to take place, this my register as an some initial—but temporary—decline in allocative efficiency.

<sup>&</sup>lt;sup>7</sup> Regulations governing market entry, pricing, trading and quality inspections accounted for about one-third of SME regulations. Such regulations are likely to heavily distort the functioning of markets and efficient resource allocations. New business registration is also heavily regulated (OECD 2016).

Lessening the regulatory burden on SMEs and improving business entry in both manufacturing and services would help uplift productivity in this important sector. Productivity of SMEs could be bolstered by accelerating the take up of new technology and increasing their participation in international trade. Similarly, instead of providing support solely based on firm size and for the survival of firms, government support for SMEs should be linked to their ability to improve productivity and potential to generate long-term profitability.

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## Annex X. The Reform Scenarios: Policies to Mitigate the Impact of Aging on Potential Growth<sup>1</sup>

1. Rapid population aging is likely to impose a drag on the economy. A shrinking working-age population will reduce labor inputs, undermining the country's long-term growth potential. Assuming labor force participation rates (LFPR) and the income share of labor remain constant at 2023 levels, aging is expected to reduce the size of the total workforce and move a portion of the workforce from younger full-time workers to older part-time workers, given a higher share of part-time employment among the elderly group relative to younger workers. Both channels would reduce the overall labor inputs. As a result, the overall labor inputs are projected to decline by 27.3 percent during 2023-2050, leading to an average annual decline of 0.67 percent in the potential growth over the projection horizon (Figure 1, first column) ceteris paribus.

2. International experience highlights the importance of boosting potential growth by increasing labor force participation, especially among groups of workers with relatively low LFPR. Drawing on the historical trends from other advanced economies, in a typical LFPR enhancement scenario, labor market reforms are expected to raise the LFPR of older workers (aged 65+) by 3 percentage points. Additionally, these reforms are expected to halve the gender gaps across three age groups (25-54, 55-64, and 65+), resulting in higher female LFPR. The increase in overall labor inputs is projected to raise potential growth by 0.12 percent per year during 2023-2050, thereby

reducing the decline in annual potential growth to 0.55 percent (Figure 1, second column).

**3. Improving resource allocation efficiency across firms is an important margin for productivity increase**. Labor and product markets reforms, enhancing access to finance, and removing distortive subsidies could lead to allocative efficiency gains, especially in services and SMEs. Implementing these reforms would result in a smaller dispersion of firm-level productivities around their respective sector's average. Assuming that the top and bottom 10 percent of the firms converge towards the median, this could result in an estimated increase in average potential growth of 0.22 percent during 2023-2050. Combining the effects of LFPR increase and allocative efficiency improvements, the net drag on potential growth from aging after above reforms is expected to be 0.33 percent annually (Figure 1, third column)<sup>2</sup>.

**4. Leveraging AI technology would also help offset the decline in potential growth**. As discussed in ¶32, the adoption of AI could boost productivity and output in an aging Korean society. The analysis (forthcoming selected issue paper) considers three main channels through which AI adoption impacts the Korean economy, depending on job characteristics and workers' skill levels: i)

<sup>&</sup>lt;sup>1</sup> Prepared by Diaa Noureldin (RES) and Zexi Sun (APD).

<sup>&</sup>lt;sup>2</sup> It is assumed that the distribution of firm-level productivity in Korea's sectors shrinks towards the median, based on the most recent data available from 2022. Specifically, under a reform scenario, the tails of the distribution are adjusted such that all firms below the 10th percentile are raised to the 10th percentile, while firms above the 90th percentile are lowered to the 90th percentile. The "Finance, Insurance, and Real Estate" sector is excluded from this exercise given its high level of measured allocative inefficiency that makes it an outlier relative to other sectors. For a detailed discussion on allocative efficiency for Korea, please refer to Annex IX.

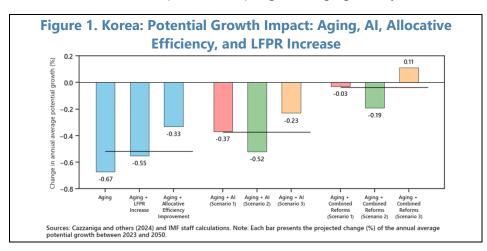
"labor displacement channel", where AI can replace humans in some jobs, increasing productivity but reducing labor demand; ii) "labor complementarity channel", where AI can complement humans in some other jobs, increasing their productivity in these jobs without necessarily displacing jobs; and iii) "overall productivity increase channel", where AI boosts the productivity across all jobs, leading to an overall increase in labor demand.

**5. To account for the large uncertainty inherited in the effects of AI adoption, three scenarios are explored.** In all three scenarios, AI adoption affects the economy through the labor displacement channel. In addition, in Scenario 1, AI also impacts the economy through the labor complementarity channel. In Scenario 2, AI also operates through the overall productivity increase channel. In Scenario 3, AI works through both the labor complementarity and overall productivity increase channels.

6. The combined effects of AI adoption, LFPR increases, and allocative efficiency improvements could more than offset the drag on potential output from aging. AI adoption itself would lower the projected average annual drag on potential growth to a range of 0.23 to 0.52 percent in different scenarios (Figure 1, fourth to sixth columns). The gains would be much higher if combining different types of reforms. In an illustrative scenario (Figure 1, last column), the aggregate reform effects from LFRP increases, allocative efficiency improvements, and AI adoption can more than fully counter the drag from aging, with an estimated net gain of 0.11 percent in annual average potential growth from 2023 to 2050.

7. Reforms with social consensus and potential for high output payoffs should be

**prioritized.** Already planned reforms with public buy-in should be prioritized for implementation in the near term, including promoting family-friendly labor market practices (Annex VI table 1), attracting foreign talent (126), advancing capital market reforms (annexes VII and VIII), and boosting technology innovations (136). Structural fiscal reforms (138) also need to be expedited. Reforms that would take time to achieve benefits or garner public support could be implemented in the medium to long term after sufficient social consultation, including those productivity-enhancing product and labor market reforms (123 and 131), and further immigration reforms (125). In general, frontloading reforms in the next decade would help deliver growth gains early, gather public buy-in, build sufficient buffers, and increase fiscal space for adapting to an aging society.



Recommendations	Agency	Description of Actions Taken					
More Robust Identification of Systemic Risk Conditions							
Conduct an <b>impact</b> assessment of the 'open banking system' and e- money on security and operational risks and market structure	FSC/FSS and BoK	<ul> <li>The FSC/FSS drew up measures to improve open banking system, including ways to enhance security on October 21, 2020.</li> <li>The FSC has been working on open banking legislation which includes duties and requirements for organizations using or participating in the system, etc. In this regard, the amendment of the Electronic Financial Transactions Act was proposed to the National Assembly on November 27, 2020. The FSC introduced periodic and non-periodic inspections of fintech companies and established a system/framework for inspecting cyber security system of financial institutions on December 22, 2021.</li> <li>The FSS has monitored cyber security risks related to open banking system.</li> <li>Banks and electronic financial service providers offering open banking services (54 in total) in the end of 2020 were subject to inspections (conducted from February to April 2021) on their operation of open banking services.</li> </ul>					
Assess the potential rollover risk implied by the Jeonse leasehold system and its connectedness to securities companies	FSC/FSS and BoK	<ul> <li>The FSC announced measures to strengthen household debt management in October 2021, which includes improving DSR rules on individual borrowers in order to establish lending practice based on borrowers' debt-servicing capabilities.</li> <li>Together with the FSS and the MOLIT, the FSC is closely monitoring the so-called reverse Jeonse phenomenon where new Jeonse leases become cheaper than the previous ones.</li> <li>In July 2023, the FSC temporarily loosened loan regulations for homeowners when they took out loans to repay Jeonse deposits to tenants in case falling Jeonse prices negatively affected their ability to repay deposits.</li> </ul>					
Enhance <b>stress testing</b> practices to better estimate vulnerabilities relating to nonperforming loan (NPL) sales, FX and domestic household liquidity, SME loans, securities intermediaries activities, and sovereign contingent liabilities		<ul> <li>The temporary deregulatory measures on the FX liquidity ratio expired in June 2022, so the regulatory FX LCR has been restored to 80 percent.</li> <li>Since the end of September 2023, Korea has been implementing FX liquidity stress testing even for securities and insurance firms.</li> <li>Since the end of June 2024, Korea has been conducting advanced FX liquidity stress testing for domestic banks, reflecting the Basel III framework.</li> <li>In line with FSAP recommendations, the FSS has improved the top-down stress testing methodology by developing K-IFRS compatible lifetime expected credit loss models.</li> <li>It is planned to further improve stress testing methods in the mid-and long-term by collecting related data.</li> <li>The BOK improved the top-down stress test model (SAMP) by incorporating each institutions' borrower characteristics such as credit score, income level, industry and regional distribution.</li> <li>The BOK also developed a stress test model for assessing domestic households' liquidity and solvency risks.</li> </ul>					

Recommendations	Agency	Description of Actions Taken					
Strengthening the Preemptive Management of Systemic Vulnerabilities							
Strengthen the institutional framework for financial stability by assigning the MEFM (or a body empowered for the equivalent purpose) macroprudential oversight as its sole primary objective	MOEF, FSC and BoK	<ul> <li>The Macroeconomic and Finance Meeting, the meeting in which the agencies concerned with macroeconomic affairs gather and discuss, is operated in Korea with the sole primary objective of analyzing and enhancing macro-prudence.</li> <li>Furthermore, taking IMF's recommendation into account, the meeting has become a regular affair to discuss the way to enhance macro-prudence.</li> <li>In light of recent economic circumstances, the 'Emergency Meeting on Macroeconomic and Financial Stability', which is presided over by the minister and joined by governors of BoK/FSS/FSC, has been held regularly in addition to the existing meeting presided over by the vice minister.</li> </ul>					
Widen the <b>definition of</b> <b>financial holding</b> <b>company</b> and enhance legal powers to cover all financial conglomerates, including requirements for group- wide liquidity risks and contingency plans	MOEF and FSC/FSS	<ul> <li>The Act on Supervision of Financial Groups took effect in June 2021. With the aim of strengthening supervision of non-holding financial conglomerates, the Act contains provisions related to (i) tightened internal control and risk management and (ii) solvency management (contagion risks and concentration risks, etc.), including the supervision of capital adequacy. Under the Act, it is required to submit and implement a management improvement plan in case of group-wide risks. Financial holding groups are already subject to similar measures under the Financial Holding Companies Act.</li> <li>The FSC and the FSS have been working on liquidity regulations that would be consistent with BCBS recommendations (LCR and NSFR) for bank holding companies and legislation of the revised supervisory regulations and enforcement decrees.</li> </ul>					
Implement a <b>Sectoral</b> <b>CCyB framework</b> for secured and unsecured household exposures of the banking sector	FSC/FSS and BoK	<ul> <li>The FSC/FSS is considering measures to require banks to set aside additional capital in proportion to their household assets ranging from 0% to 2.5% of the total risk-weighted assets.</li> <li>With the growth of household loans slowing down, the FSC/FSS is monitoring macroeconomic developments to determine the adoption and timing of enforcement.</li> <li>FSC also raised the countercyclical capital buffer (CCyB) requirement for banks and bank holding groups from zero to one percent of total risk-weighted assets beginning in May 2024.</li> </ul>					

Recommendations	Agency	Description of Actions Taken					
Intensifying Supervision and Promoting a Level Playing Field							
Review the <b>role of state-controlled</b> <b>banks</b> and ensure that their commercial lending and investment activities conform, at a minimum, with prudential requirements for nationwide banks	FSC/FSS	<ul> <li>To improve the resiliency of state-controlled banks with regard to the management of lending and investment activities, the Korea Development Bank and Industrial Bank of Korea adopted the Basel III framework for credit risk in December 2020, and finalized the implementation of Basel III in January 2023 with the same prudential requirements as for nationwide banks.</li> </ul>					
Increase risk-based supervisory intensity of insurers, ensure a	FSC/FSS	<ul> <li>The FSC/FSS announced the final version of Korean-Insurance Capital Standard (K-ICS) and implemented K-ICS in 2023.</li> </ul>					
prudent and proportionate implementation of Korea Insurance Capital Standard (K-ICS) (solvency		<ul> <li>K-ICS evaluates assets and liabilities at fair value including insurance liabilities and adds new insurance risks such as longevity risks.</li> </ul>					
regime) and design of the capital charge for longevity risks		<ul> <li>The FSS changed the method of measuring required capital from risk coefficient to stress approach, and increased the risk confidence levels from 99% to 99.5%.</li> </ul>					
		<ul> <li>The FSC/FSS has supported the stable establishment of K-ICS and has implemented the K-ICS external verification regime requiring insurance companies to submit verification reports validated by accounting firms. To reinforce the transparency of the regime, the FSS plans to disclose the verification reports to public from the year-end settlement of 2024.</li> </ul>					
Focus the <b>role of the FSC</b> towards strategy, addressing nonbank data gaps, market development policies, and crisis preparedness while assigning greater operational and enforcement authority to the FSS	MOEF and FSC/FSS	<ul> <li>The FSC is responsible for formulating financial policies, supervising financial institutions, and financial markets, protecting consumers, and advancing Korea's financial industry.</li> <li>On the other hand, the FSS examines and supervises financial institutions under the oversight and guidance of the FSC as per the Act on the Establishment, etc. of Financial Services Commission. The FSC and FSS will closely cooperate with each other to address financial issues in a timely and harmonious way while playing their own roles as stipulated in the Act.</li> </ul>					
Support the development of pension and contractual savings products by introducing multi- employer pension schemes and	MOEL, MOHW						
building further capacity for oversight of pension funds market							

Recommendations	Agency	Description of Actions Taken					
Reinforcing Crisis Management, Safety Nets, Resolution Arrangements							
Include <b>cross-border activities and</b> <b>overseas operations of financial</b> <b>conglomerates</b> in resolution plans, clarify issues relating to resolvability, and relationship between ELA and resolution funding	FSC/FSS	<ul> <li>The Recovery and Resolution Plans (RRP) for financial holding companies and banks came into effect in June 2021. Since then, three cycles of RRP are completed. The fourth cycle is currently underway.</li> <li>Issues regarding cross-border activities/operations are included in FSC's deliberation standards on RRP and resolution plans developed by the Korea Deposit Insurance Corporation (KDIC).</li> <li>If financial institutions fail to meet FSC's deliberation standards on RRP, the FSC may require them to supplement and address issues/challenges in accordance with the law.</li> <li>Pursuant to the amendment of the Act on the Structural Improvement of the Financial Industry (December 2020), D-SIFIs are required to draw up their own recovery plans, and Korea Deposit Insurance Corporation draws up the resolution plans every year as recommended by the Financial Stability Board. These requirements came into effect in June 2021.</li> <li>The FSS develops evaluation reports on the recovery plans prepared by D-SIFIs, and the FSC approves the recovery plans based on the evaluation reports and reviews of the RRP committee. The RRP committee comprises the chair from the FSC and four committee members from external experts.</li> </ul>					
Strengthen the <b>insolvency and</b> <b>creditor's rights regime</b> through well- resourced courts and a functioning insolvency practitioners' profession	MoJ	<ul> <li>The Act on the Establishment and Jurisdiction of Courts of Various Levels was revised in December 2022, and Suwon Bankruptcy Court and Busan Bankruptcy Court will be established to provide residents in each jurisdiction with specialized and faster judicial service regarding rehabilitation and bankruptcy cases.</li> <li>The Debtor Rehabilitation and Bankruptcy Act was revised in December 2022 to permit overlapping jurisdictions and allow debtors to file rehabilitation cases, simplified rehabilitation cases, bankruptcy cases, or individual rehabilitation cases in Busan Bankruptcy Court if they reside in or their main offices are in Ulsan Metropolitan City or Gyeongsangnam-do (South Gyeongsang Province).</li> </ul>					

### Annex XII. Data Issues

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#### **Table 2. Korea: Data Standards Initiatives**

Korea subscribes to the Special Data Dissemination Standard (SDDS) since September 1996 and publishes the data on its National Summary Data Page. The latest SDDS Annual Observance Report is available on the Dissemination Standards Bulletin Board (https://dsbb.imf.org/).

Table 3. Korea: Table of Common Indicators Required for Surveillance         As of January 9, 2025								
	Data Provision to the Fund				Publication under the Data Standards Initiatives through the National Summary Data Page			
	Date of Latest Observation	Date Received	Frequency of Data <sup>6</sup>	Frequency of Reporting <sup>6</sup>	Expected Frequency <sup>6,7</sup>	Korea <sup>8</sup>	Expected Timeliness <sup>6,7</sup>	Korea <sup>8</sup>
Exchange Rates	1/9/2025	1/9/2025	D	D	D			1
International Reserve Assets and Reserve Liabilities of the Monetary Authorities <sup>1</sup>	Dec-24	Jan-25	М	М	М	30	1W	30
Reserve/Base Money	Oct-24	Dec-24	М	М	М	30	2W	14
Broad Money	Oct-24	Dec-24	М	М	М	30	1M	56
Central Bank Balance Sheet	Oct-24	Dec-24	М	М	М	30	2W	14
Consolidated Balance Sheet of the Banking System	Oct-24	Dec-24	м	М	м	30	1M	56
Interest Rates <sup>2</sup>	1/9/2025	1/9/2025	D	D	D			35
Consumer Price Index	Dec-24	Jan-25	М	М	м	30	1M	7
Revenue, Expenditure, Balance and Composition of Financing <sup>3</sup> –General Government <sup>4</sup>	2023	Dec-24	А	А	А	365	2Q	430
Revenue, Expenditure, Balance and Composition of Financing <sup>3</sup> –Central Government	Nov-24	Jan-25	М	М	М	30	1M	45
Stocks of Central Government and Central Government-Guaranteed $Debt^{5}$	Nov-24	Jan-25	М	М	Q	90	1Q	45
External Current Account Balance	Nov-24	Jan-25	М	М	Q	30	1Q	60
Exports and Imports of Goods and Services	Nov-24	Jan-25	м	М	М	30	8W	21
GDP/GNP	Q3 2024	Q4 2024	Q	Q	Q	90	1Q	70
Gross External Debt	Q3 2024	Q4 2024	Q	Q	Q	90	1Q	90

<sup>1</sup> Includes reserve assets pledged or otherwise encumbered, as well as net derivative positions.

<sup>2</sup> Both market-based and officially determined, including discount rates, money market rates, rates on treasury bills, notes and bonds.

<sup>3</sup> Foreign, domestic bank, and domestic nonbank financing.

International Investment Position

<sup>4</sup> The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments. <sup>5</sup> Including currency and maturity composition.

O3 2024

Q4 2024

<sup>6</sup> Frequency and timelines: ("O") weekly or with a lag of no more than one week after the reference date; ("M") monthly or with lag of no more than one month after the reference date; ("Q") quarterly or with lag of no more than one quarter after the reference date; ("A") annual; ("SA") semiannual; ("I") irregular; ("NA") not available or not applicable; and ("NLT") not later than.

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<sup>7</sup> Encouraged frequency of data and timeliness of reporting under the e-GDDS and required frequency of data and timeliness of reporting under the SDDS and SDDS Plus. Any flexibility options or transition plans used under the SDDS or SDDS Plus are not reflected. For those countries that do not participate in the IMF Data Standards Initiatives, the required frequency and timeliness under the SDDS are shown for New Zealand, and the encouraged frequency and timeliness under the e-GDDS are shown for Eritrea, Nauru, South Sudan, and Turkmenistan.

<sup>8</sup> Based on the information from the Summary of Observance for SDDS and SDDS Plus participants, and the Summary of Dissemination Practices for e-GDDS participants, available from the IMF Dissemination Standards Bulletin Board (https://dsbb.imf.org/). For those countries that do not participate in the Data Standards Initiatives, as well as those that do have a National Data Summary Page, the entries are shown as "..."



## **REPUBLIC OF KOREA**

STAFF REPORT FOR THE 2024 ARTICLE IV CONSULTATION —INFORMATIONAL ANNEX

January 21, 2025

Prepared By

Asia and Pacific Department

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## **FUND RELATIONS**

(As of January 6, 2025)

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)	6,379.25	74.33
Reserve tranche position	2,203.49	25.67
Lending to the Fund		

### **SDR Department**

	SDR Million	Percent Allocation
Net cumulative allocation	10,630.58	100.00
Holdings	11,338.09	106.66

### **Outstanding Purchases and Loans**

None

#### Financial Arrangements (In SDR Million)

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

#### **Projected Obligations to Fund<sup>1</sup>**

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

	2025	2026	2027	2028
Principal	0.0	0.0	0.0	0.0
Charges/interest	0.08	0.08	0.08	0.08
Total	0.08	0.08	0.08	0.08

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 has accepted the obligations

under Article VIII, Sections 2, 3 and 4 of the IMF's Articles of Agreement and maintains an exchange system free of multiple currency practices and of restrictions on the making of payments and transfers for current international transactions, except for exchange restrictions imposed 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).

### **Recent FSAP and ROSC Participation:**

An FSAP was concluded in March 2020. The Financial System Stability Assessment report has been published (Country Report No. 20/120) and is available on the web at: <u>https://www.imf.org/-/media/Files/Publications/CR/2020/English/1KOREA2020001.ashx</u>

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: <u>http://www.imf.org/external/pubs/ft/scr/2010/cr10229.pdf</u>

### **Technical Assistance:**

FAD: A technical assistance mission on government finance statistics took place in Seoul during the period November 8–19, 2010.

MCM: Remote technical assistance on foreign exchange reserves management was conducted in November 2020.

FAD: Remote technical assistance on fiscal policies for achieving Korea's 2020 climate mitigation goals in November 2021.

FAD: Technical assistance for improving the forecasting accuracy of corporate income and capital gains taxes in June 2024.

## STATISTICAL ISSUES

As of January 6, 2025

### I. Assessment of Data Adequacy for Surveillance

**General:** Data provision is adequate for surveillance.

**National Accounts:** The overall structure of the national accounts follows the recommendations of the *System of National Accounts 2008.* Chain-linked (reference year 2015) and nominal GDP estimates are compiled using the production and expenditure approaches; nominal GDP estimates are also compiled using the income approach. The production approach provides the headline GDP and a statistical discrepancy is identified on the expenditure side.

**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 38 urban areas, should ideally be extended to rural areas. The consumption basket is updated every three years; currently, expenditure weights are derived from the *2020 Household Income and Expenditure Survey*. The CPI is calculated using methods consistent with the *2020 CPI Manual*, including imputation of missing and seasonal products, geometric means of prices at the lowest levels, and quality adjustment when specifications change.

**Producer Price Index:** The Producer Price Index (PPI) covers all domestic industrial activities and a large segment of services activity. It excludes exported products, however, because export price indexes are compiled separately. The current PPI (2015 = 100) follows recommended compilation processes from the *2004 PPI Manual*. The index weights are updated each year based on the national accounts input-output tables with a three-year lag. The PPI classification by activity conforms to the Korean Standard Industry Code (KSIC), which is itself based on the International Standard Industrial Classification (ISIC)—with slight modifications only to reflect local considerations. PPIs by stage of processing are also disseminated.

**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 *GFSM 2001*. The Korean authorities compile annual consolidated GFS data on the general government for inclusion in the IMF's Government Finance Statistics Database. These data include a statement of general government operations and a full balance sheet.

**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 and Compilation Guide*. The BOK compiles monthly monetary data for the central bank and other depository corporations using the standardized report forms (SRFs). The BOK does not compile data for other financial corporations using the SRFs.

Korea compiles quarterly Financial Soundness Indicators (FSIs) and metadata in line with the 2019 FSI *Compilation Guide* for dissemination on the FSI website, with data currently available through 2023Q2.

Korea also compiles data on several key series and indicators of the Financial Access Survey (FAS), including the two indicators (commercial bank branches per 100,000 adults and ATMs per 100,000 adults) adopted by the UN to monitor Target 8.10 of the Sustainable Development Goals (SDGs).

**External Sector Statistics:** The BOK currently compiles the balance of payments and international investment position (IIP) statistics consistent with the *Balance of Payment and International Investment Position Manual, sixth Edition (BPM6*) analytical framework (see <a href="http://ecos.bok.or.kr/">http://ecos.bok.or.kr/</a>). The BOK adopted the *BPM6* in March 2014.

### II. Data Standards and Quality

Korea subscribed to the Special Data	A Data ROSC report was published in May 2003
Dissemination Standard (SDDS) on September 20,	and updated in <u>July 2010</u> .
1996 with metadata published on the Data	
Standards Bulletin Board (DSBB). The latest annual	
observance report for Korea is available on the	
DSBB.	

### Statement by Seong-Wook Kim, Executive Director for Korea, Jae Woo Oh, Senior Advisor to Executive Director, Eunji Choi, Advisor to Executive Director, and Minjoo Park, Advisor to Executive Director February 5, 2025

On behalf of the Korean authorities, we would like to thank Mr. Raul Anand and his team for the candid and constructive discussions during the 2024 Article IV consultations. The authorities value staff's continuous engagement and broadly concur with staff's assessment of the economic outlook and policy recommendations.

### **Recent Development and Outlook**

The Korean economy has remained resilient, supported by strong economic fundamentals and sound macroeconomic policies. In 2024, job growth was robust, with the employment rate reaching record highs. Export momentum remained favorable, particularly in semiconductors and shipbuilding. In addition, as monetary policy normalized and real income improved, private consumption gradually recovered. The current account surplus increased significantly compared to 2023, driven by strong export performance and robust primary income balances. Overall, the economy in 2024 is expected to have grown in line with its potential growth rate.<sup>1</sup>

In a challenging economic landscape, uncertainty surrounding future growth paths has risen. Although the recent domestic political uncertainty, which has temporarily dampened consumer sentiment, is expected to gradually subside, GDP growth this year is likely to moderate with the slowing momentum of exports growth amid intensified global competition in key industries and potential policy shifts by major trading partners.<sup>2</sup> With risks to growth increasing, the authorities are prioritizing efforts to preserve macroeconomic stability, support vulnerable groups, and adapt the economy to the evolving global trade and supply chain environment, as outlined in the "2025 Economic Policy Directions" announced this January.

Given the Korean economy's well-established resilience, the economic impact of the recent political events is expected to be temporary and limited. Further market anxiety or economic disruption has been contained thanks to the rational and discerning responses of households and businesses, supported by swift policy actions grounded in a consistent and systematic policy framework. The government has been communicating in a timely and transparent manner with various stakeholders and global partners. In addition, the National Assembly promptly approved the 2025 budget proposal, and all political parties and the government have collaboratively

<sup>&</sup>lt;sup>1</sup> Growth for 2024 (Advanced Estimate, Bank of Korea, January 23, 2025): 2.0%

<sup>&</sup>lt;sup>2</sup> Growth forecast for 2025: (Ministry of Economy and Finance, Jan. 2025) 1.8%, (Bank of Korea, Dec. 2024) 1.9%

launched the "National Policy Council," ensuring the effective implementation of key financial and economic policies through bipartisan cooperation.

**Inflation is expected to remain near the 2 percent target**. In 2024, inflation slowed down moderately and then remained stable. Compared to November, consumer price inflation rose to 1.9 percent and core inflation fell slightly to 1.8 percent in December. This year, inflation is also expected to remain stable, supported by subdued demand pressure. However, there remain uncertainties stemming from volatile global oil prices and elevated exchange rates, which the authorities will continue to monitor closely.

The authorities concur with the staff's view that foreign exchange (FX) reserves, coupled with substantial net foreign assets, provide adequate buffers against potential shocks. FX reserves stood at \$415.6 billion at the end of December 2024—a slight increase from \$415.4 billion at the end of November—despite recent market volatility. They also agree with the staff's assessment that the external sector is broadly in line with the level implied by medium-term fundamentals and desirable policies. While the current account surplus is expected to remain robust this year, its size will be influenced by evolving global trade patterns and the reactions of key trading partners. The authorities reaffirm that FX intervention is conducted only during episodes of excessive volatility and is not intended to target any particular level.

### Monetary and Fiscal Policy

**The Bank of Korea (BOK) has gradually shifted away from its tight monetary policy stance as price stability became evident**. After cutting the Base Rate twice in 2024, the BOK kept the Base Rate unchanged in January 2025 given high domestic and global uncertainties that could exert pressures on exchange rate and inflation. Meanwhile, to mitigate downside risks, the BOK has expanded its temporary liquidity support to small and medium-sized businesses through the Bank Intermediated Lending Support Facility. While carefully assessing domestic and external developments and trade-offs between policy variables such as inflation, growth, the exchange rate, and financial stability, the BOK will continue to flexibly determine the pace of its policy adjustments.

The authorities remain committed to pursuing fiscal consolidation while preserving sufficient fiscal space to address long-term spending needs. The 2025 budget proposal upheld efforts to achieve long-term fiscal sustainability by improving the fiscal balance and managing debt. The budget approved by the National Assembly falls within the scope of the fiscal rule proposal (which serves as the current administration's implicit fiscal anchor), featuring a total expenditure growth rate of 2.5 percent, a managed fiscal deficit of 2.8 percent of GDP, and a debt-to-GDP ratio of 48.1 percent. The authorities aim to gradually improve the managed fiscal balance to remain within a deficit of 3 percent of GDP and to maintain the government debt at

around 50 percent of GDP by 2028. They are also committed to legislating fiscal rules and advancing pension reforms in a timely manner, with ongoing discussions in the National Assembly regarding the government's proposals.

**The 2025 budget also addresses urgent spending priorities, including supporting overall economic activity, promoting innovation, and safeguarding public livelihoods**. To facilitate the early execution of essential spending, 75 percent of the total expenditure has been allocated for the first half of the year. The authorities have also undertaken substantial expenditure restructuring through prioritization, significant cuts in discretionary spending, and ongoing fiscal reforms—such as rationalizing tax expenditures, terminating and consolidating subsidies, and improving revenue forecasting accuracy.

### **Financial Sector Policy**

**Despite elevated market volatility, systemic risks to financial stability remain low**. Financial soundness indicators of financial institutions continue to exceed regulatory thresholds. The household debt-to-GDP ratio, which has been closely related to the real estate market, is expected to moderate due to the strengthening of macroprudential policies. Risks related to real estate project financing (PF) are being mitigated through soft-landing measures and market-driven restructuring. The recent spike in financial and FX market volatility since last December has subsided, supported by swift and decisive policy measures, including sufficient liquidity provision through RP purchases by the BOK and temporary regulation easing. The authorities are closely monitoring market developments, with regulatory agencies maintaining vigilance over financial institutions' liquidity and capital buffers, household and corporate debts, and PF insolvencies. They remain prepared to take additional actions under the contingency plan when necessary, ensuring that such measures are both temporary and targeted.

**The authorities continue their unwavering efforts to advance financial market reforms**. The corporate value-up program is expected to enhance capital market accessibility and liquidity through improving information disclosure and adopting higher corporate governance standards. The FX market reforms, including the opening of the onshore market to registered foreign institutions and the extension of trading hours, are progressing as planned. These measures are expected to strengthen resilience and efficiency by deepening the currency market. In addition, following the inclusion of Korean government bonds in the World Government Bond Index last October, the authorities are working to further improve trading infrastructure for offshore investors.

### **Structural Policies**

The Korean government is firmly committed to advancing structural reforms to enhance growth potential and address long-term challenges. Notably, the "Dynamic Economy Roadmap,"

announced last July, focuses on strengthening the innovation ecosystem, promoting fair opportunities, and improving social mobility.

The authorities strongly support non-distortionary, open trade and adherence to the WTO process. Simultaneously, amid significant shifts in the global trade and supply chain landscape, comprehensive efforts are being made to help businesses adapt to these changes. These efforts include providing urgent liquidity support to struggling businesses, diversifying trade partners and supply sources, and building strategic reserves of essential materials.

**Fostering innovation and enhancing industrial competitiveness remain key priorities**. The authorities aim to increase productivity in SMEs, boost startup activity, and advance high-tech industries by reducing market entry barriers, removing anti-competitive regulations, nurturing skilled professionals, and increasing public investments in essential infrastructure and innovative R&D in sectors such as Artificial Intelligence, quantum computing, and biotechnology. Furthermore, they are focused on expanding technology-driven innovative services to promote job creation and drive the growth of service exports. Notably, these policies fully adhere to global norms, including WTO compliance.

**Tailored support for vulnerable groups is being further strengthened**. The 2025 budget includes record-high levels of policy financing for low-income households, aiming to lower essential living expenses, expand free after-school programs and elderly care facilities, and raise labor force participation rates for youth and women to reach the OECD average. Moreover, the government is intensifying efforts to ensure employment stability for vulnerable groups. Such measures include promoting youth employment in SMEs and enhancing retraining programs to facilitate re-entry into the job market, retention programs to prevent career breaks, and assistance for career transitions.

Additional efforts are underway to address long-term challenges. To tackle low fertility rates and a declining labor force, the authorities are prioritizing the promotion of a family-friendly working environment and increasing family-related budgetary spending. Against this backdrop, the annual number of births in 2024 is expected to rebound for the first time in nine years, with the total fertility rate projected to exceed both the initial estimates and that of the prior year. They are also taking steps to attract and retain skilled foreign talent by easing visa restrictions and improving living conditions for foreign residents. In addition, the authorities have strengthened their commitment to achieving the country's climate goals and fostering green industries. As part of these efforts, they plan to set the total emission cap for the fourth phase of the Korean Emissions Trading Scheme (2026-2030) in alignment with the NDC target. Focus will also be placed on enhancing the efficiency and transparency of the emissions trading market by reducing the share of free allowances and expanding market participation.