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Advancing Labor Market Reforms in Korea

Stella Tam and Xin Cindy Xu

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WORKING PAPER

IMF Working Paper

Asia and Pacific Department

**Advancing Labor Market Reforms in Korea
Prepared by Stella Tam and Xin Cindy Xu***

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August 2024

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ABSTRACT: This paper examines structural challenges facing the Korean labor market and analyzes the macroeconomic effects of potential labor market reforms. Our cross-country empirical analysis finds that easing of employment protection legislation tends to have positive macroeconomic effects during periods of strong growth but could turn contractionary in periods of slack. By contrast, increased spending on active labor market policies and reductions to the labor tax wedge tend to be more effective in periods of slack. Our analysis thus highlights the importance of considering economic and policy conditions when designing labor market reforms. Under the current disinflationary policy stance, the government's focus on the working hour reform seems appropriate. With growth recovering, deregulation to reduce employment protection for regular workers can also be considered, combined with targeted support to vulnerable groups.

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WORKING PAPERS

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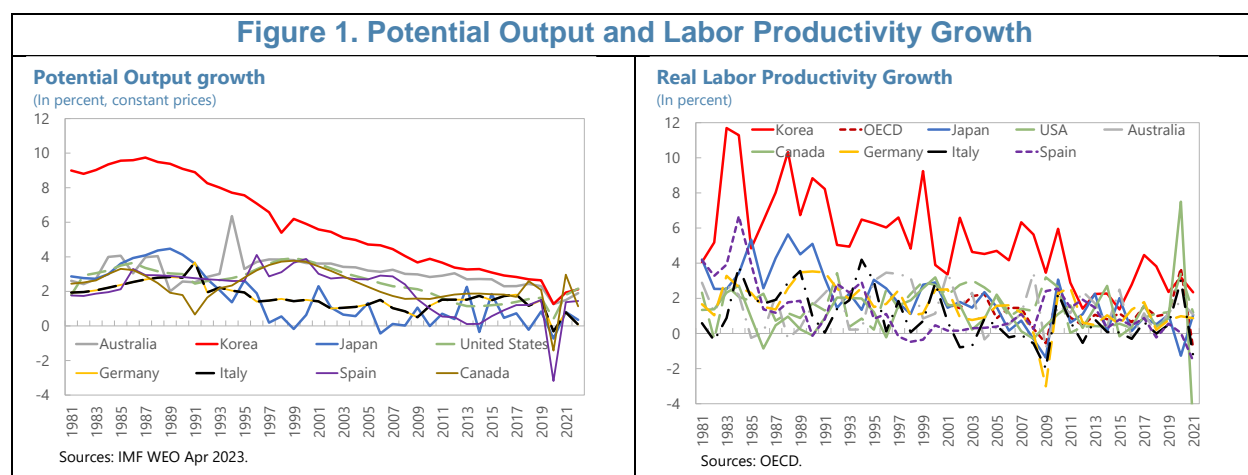
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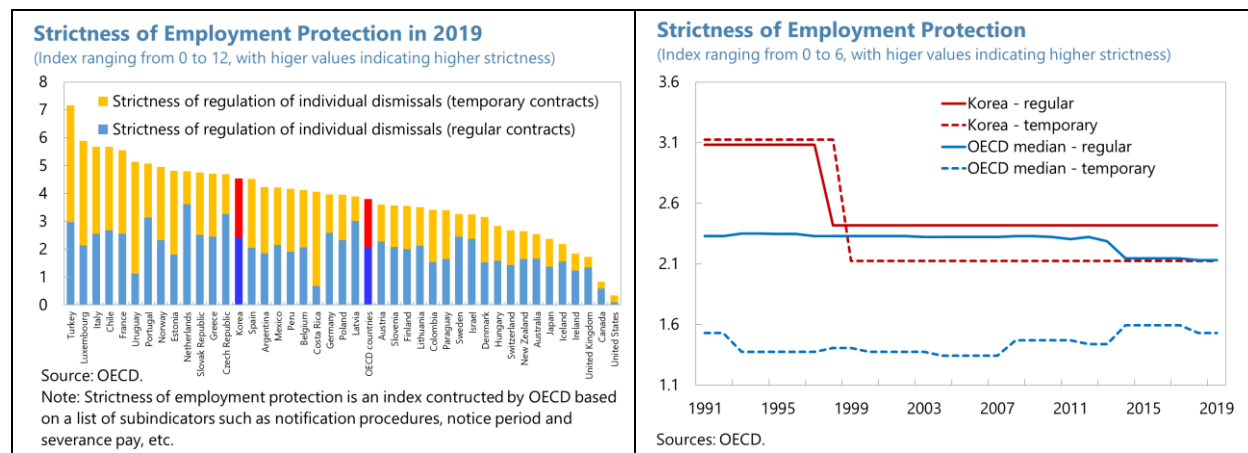
1. Introduction

Potential output and productivity growth in Korea have slowed down significantly in recent decades (Figure 1). Part of the slowdown could be explained by a natural process of convergence, with growth slowing as income per capita increases. But the relatively fast pace of declines may also reflect some structural bottlenecks that hold back potential output and productivity growth in Korea.



A key structural challenge facing the Korean economy is high labor market rigidity. Employment protection in Korea is more restrictive than the OECD average, for both regular and temporary workers, with a challenging legal procedure and costly severance pay in individual dismissals. Following significant adjustment during the Asian Financial Crisis, the level of employment protection has remained unchanged in Korea in recent decades, while employment protection was gradually relaxed in OECD countries on average (Figure 2). Labor market duality is high, with one of the highest shares of non-regular workers in the OECD. The social safety net is limited, including relatively low spending on labor markets and support for vulnerable groups. The wage system is largely seniority-based rather than performance-based, with the flexibility of wage determination relatively lower than in other advanced economies. Large gender gaps exist in employment and wages. In addition, Korea has very long working hours and inflexible working-hour arrangements.

Figure 2. Strictness of Employment Protection



Efforts have been made in recent decades to reduce rigidity in the labor market. Several rounds of reforms have been introduced to tackle labor market dualism, including the 2007 introduction of the Temporary Workers Act and Dispatch Workers Act, and targeted measures to enhance working conditions and social insurance for non-regular workers during 2011-2015 (Jones and Fukawa, 2016; Schauer, 2018). Progress has been made to strengthen the social safety net, including the introduction of the in-work earned income tax credit in 2008, expansion of the social welfare programs during 2010s, and ongoing enhancement of parental leave and childcare support. Legislations have been revised to encourage working-time reduction, including the introduction of the 40-hour standard workweek in 2004 and the reduction of the limit on total weekly working hours from 68 to 52 hours in 2018 (ILO, 2022).

The current government has prioritized further labor market reforms to improve flexibility and enhance protection of vulnerable groups. They have announced a three-pillar reform plan, including more flexible working hours, switching to a performance-based pay system, and tackling labor market duality. The announced working hour reform in March 2023, which envisaged reducing restrictive regulations on weekly working hours while limiting overtime over longer time intervals, faced pushback from younger workers. The authorities are working on a revised reform proposal, incorporating public opinion from a recent survey. While details are still being formulated in the other two pillars, the authorities have formed a committee to design reform plans to reduce labor market duality and are in a close dialogue with firms to develop a roadmap for wage system reform.

The potential gains and pitfalls from labor market reforms have been well documented in the literature. Blanchard and Giavazzi (2003) highlight the long-term gains from labor market deregulations while also pointing out the political economy constraints and hence, the importance of careful reform designs. Designing labor market institutions to enhance flexibility while protecting workers is a difficult task (Blanchard, et al, 2013). Duval and Furceri (2018) estimate the dynamic macroeconomic effects of different types of labor market reforms and stress the role of macroeconomic conditions and policies in determining reform gains. Recent

studies have also revealed the need for labor market reforms in Korea, notably reforms to tackle duality (Schauer, 2018) and promote inclusive growth (Jones and Urasawa, 2013; Jones and Fukawa, 2016). But a comprehensive assessment on the labor market reform strategy in Korea – which takes account into labor market rigidities, economic and policy conditions, and the government’s reform priorities – seems lacking.

Against this background, this paper aims to shed light on the question how to advance labor market reforms in Korea. Section 2 illustrates some stylized facts on key structural challenges facing the Korean labor market. Section 3 presents empirical analysis on the impact of key labor market reforms on output, employment, and productivity. Section 4 concludes with policy discussions on how to achieve successful labor market reform in Korea.

2. Structural Challenges in the Korean Labor Market – Stylized Facts

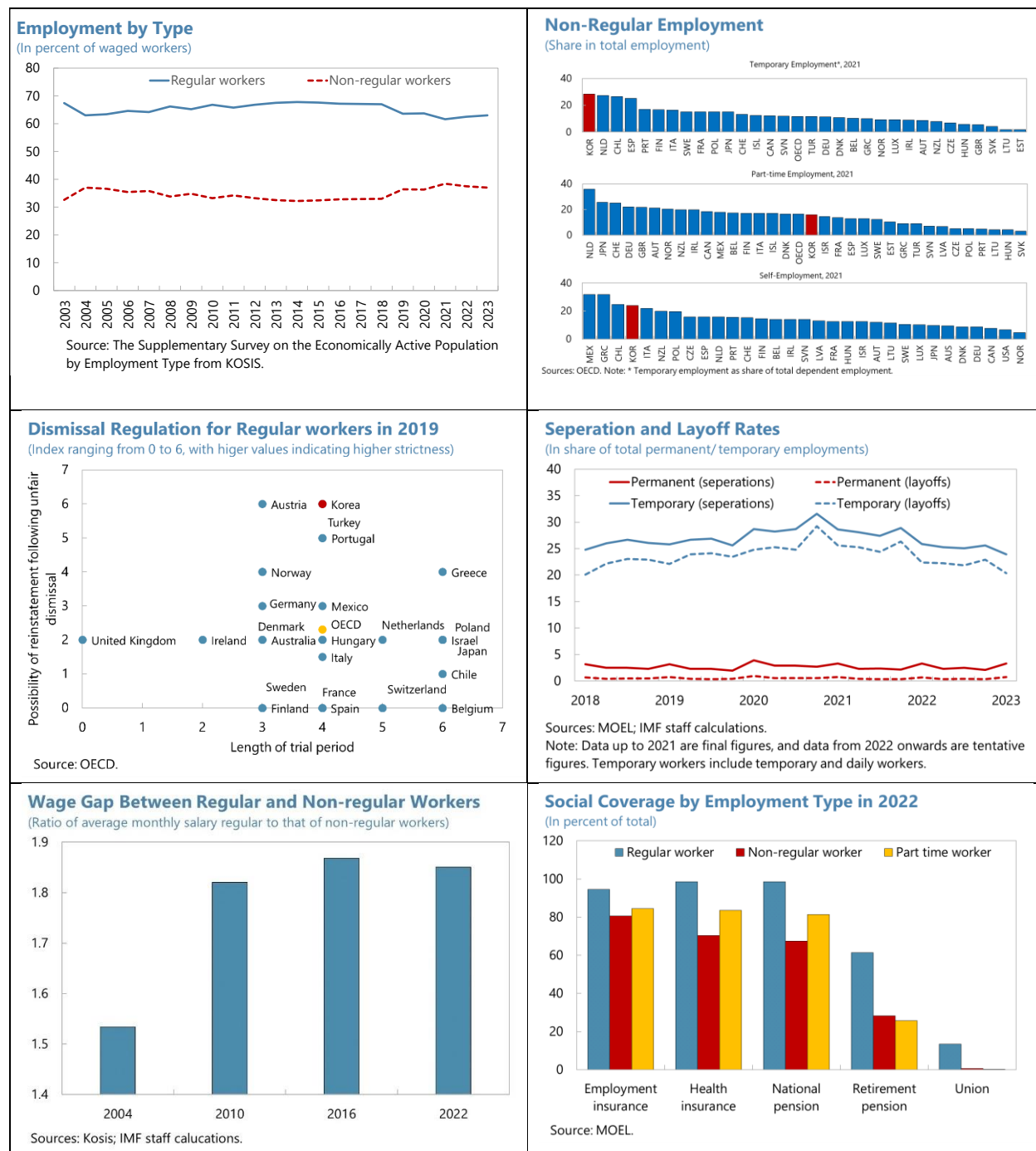
Dual labor market

High labor market duality is a long-standing issue in Korea (Figure 3). The Korean labor market is fragmented into regular and non-regular workers.² Regular workers enjoy better job security, more benefits, and higher wages than non-regular workers. The share of non-regular workers has been relatively stable in recent decades, ranking among the highest in OECD. In particular, the share of temporary workers is the highest in OECD.

- Regular workers in Korea typically enjoy a lifelong employment, with strong restrictions on dismissals. The process to dismiss a regular worker is lengthy and legally difficult. In addition, the severance cost to fire a regular worker is also very high in Korea.
- In contrast, temporary workers face much higher separation and layoff rates. They receive much lower wages, on average just over half of those of regular workers. In addition, they also get lower social benefits coverage, notably in pension, health, and employment insurance.

Figure 3. Labor Market Duality

² In Korea, in general, the employment status classifies workers as “regular” and “non-regular” worker. However, in the Labor Force Survey at Establishments, “temporary worker” is used as the term instead of “non-regular worker”.

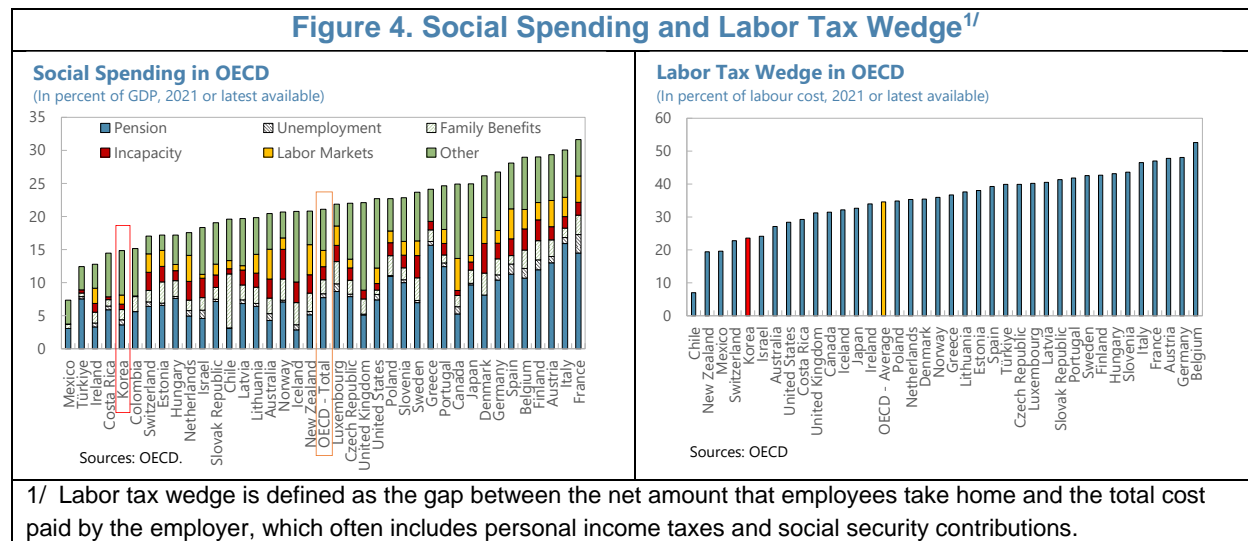


Low social spending

Public spending on social protection is relatively low in Korea (Figure 4). The social spending-to-GDP ratio is among the lowest in OECD. There are three areas where the gap is particularly large relative to the OECD average: public spending on pensions, labor markets and incapacity. In some other areas, including unemployment, family benefits and other social spending,

spending levels are close to the OECD average. Consistent with relatively low social spending, the labor tax wedge is not high in Korea.

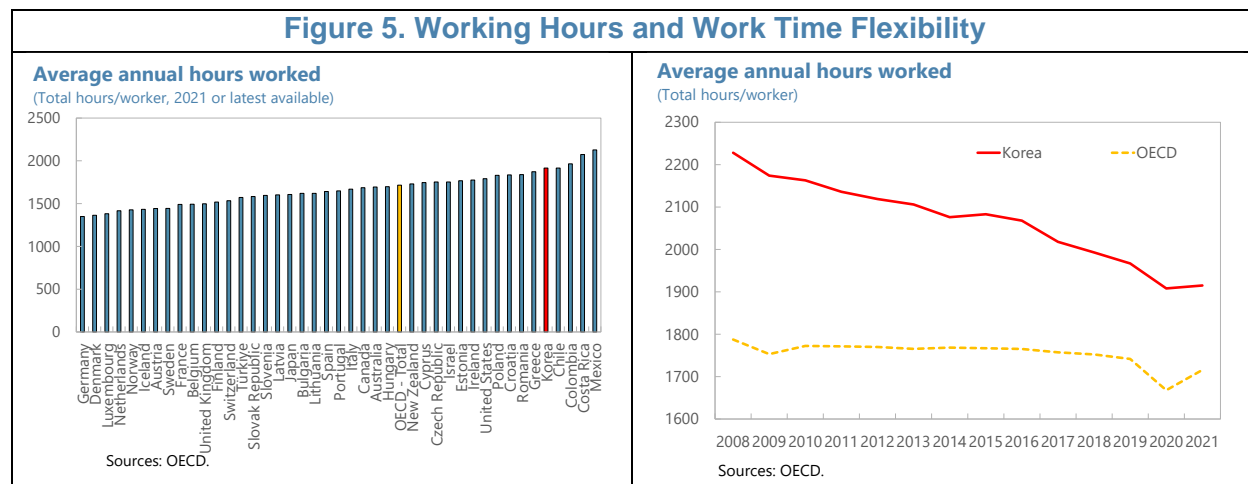
Figure 4. Social Spending and Labor Tax Wedge^{1/}

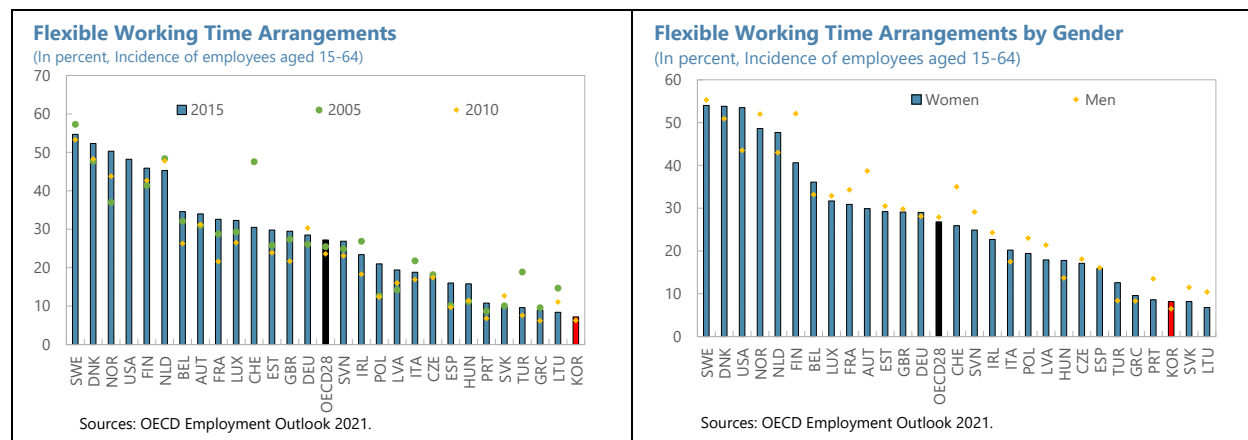


Long working hours

Korean workers face long working hours with limited flexibility (Figure 5). Average annual hours worked in Korea are among the highest in the OECD. Progress has been made in recent decades to reduce the long working hours, but there is still a large gap of about 200 hours per year relative to the OECD average. Furthermore, the share of workers who can work under flexible working time arrangements is the lowest in the OECD, with only 7 percent of total, compared to the OECD average of nearly 30 percent. By gender, a higher share of Korean women is working under flexible working time arrangements than men, but both are significantly below the OECD average.

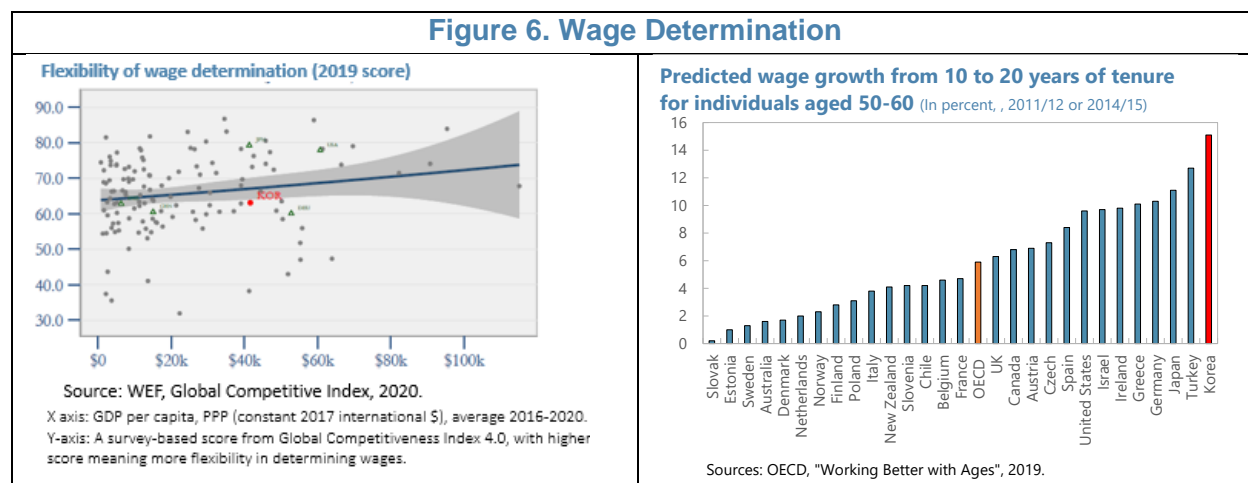
Figure 5. Working Hours and Work Time Flexibility





Seniority-based pay

With a seniority-based wage system, the flexibility of wage determination is relatively low in Korea (Figure 6). Korea is shown as below the predicted level of wage flexibility based on its per-capita income position, according to a survey-based score by the World Economic Forum in 2020 (a higher score meaning more flexibility of wage determination). One key reason is that the wage system in Korea is strongly linked to seniority rather than productivity. According to an OECD report in 2019, for a typical worker aged 50-60, the predicted wage growth from their 10th year to the 20th year of tenure is the highest in Korea among all OECD countries.



3. Impact of Labor Market Reforms – Empirical Analysis

Empirical Framework

To understand better the macroeconomic impact of labor market reforms, this section follows the empirical approach of Duval and Furceri (2018) using an updated panel dataset (see Appendix). Specifically, we apply a local projection method to capture the dynamic response of key macro variables to major labor market reform shocks over the medium term (up to 4 years after reform). We explore two empirical settings: i) a baseline setting that controls for key reform shocks and economic fundamentals; and ii) an extended setting that also accounts for economic and policy conditions during reform implementation.

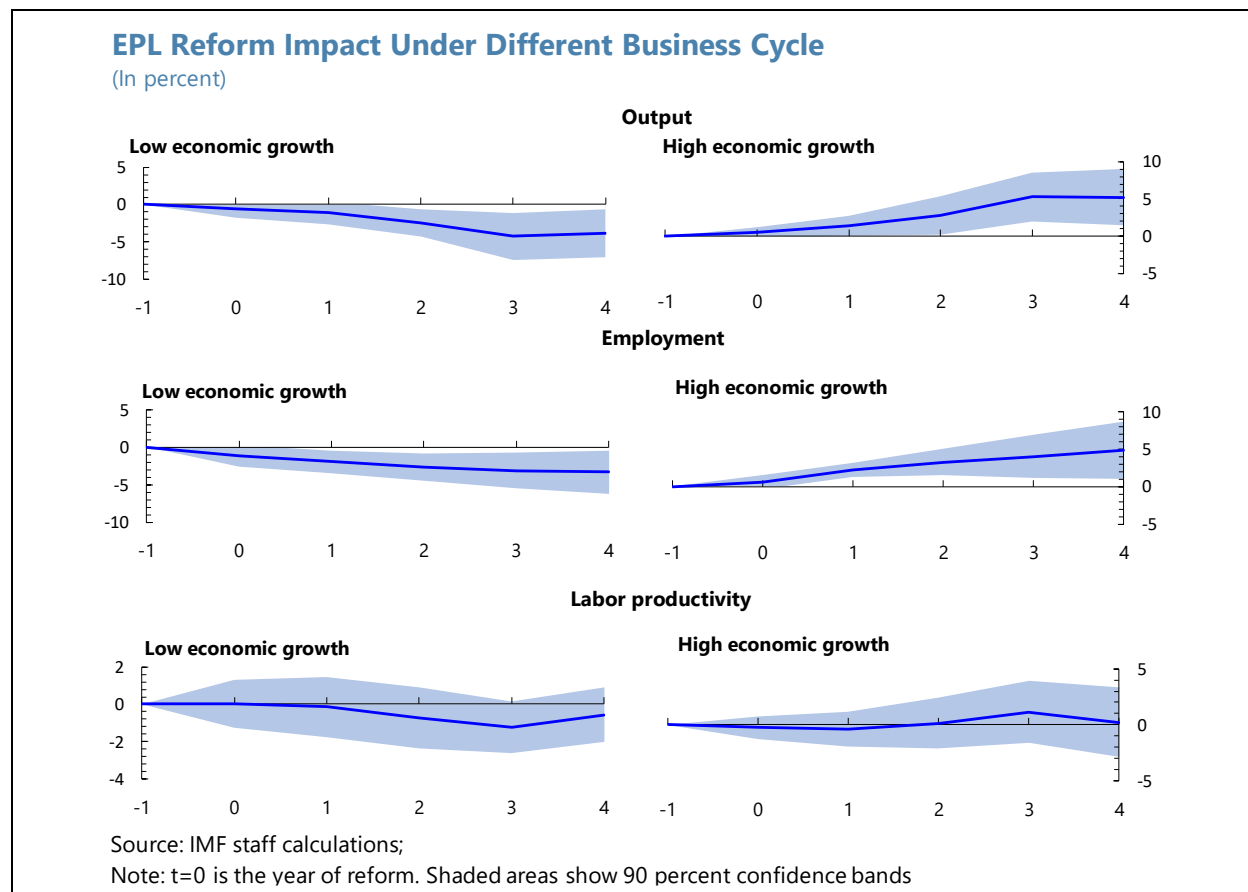
We focus on the response of three main macro variables: (1) economic output, (2) employment and (3) labor productivity to the following key labor market reforms:

- **Employment protection legislation (EPL) reform for regular workers.** Restrictive EPL is identified as a key driver for labor market duality in Korea (Schauer, 2018) and literature also finds that major EPL reforms could substantially reduce duality (Aoyagi and Ganelli, 2013) and tackle gender gaps (IMF Article IV report on Korea, 2023, Annex XII). In this paper, EPL reforms are based on the narrative reform database developed by Duval et al. (2016), which identifies major regulatory actions reported in the OECD Economic Survey.
- **Changes in active labor market policy (ALMP) spending.** OECD data on public spending (in percent of GDP) on ALMPs such as vocational trainings and job matching programs is used.
- **Changes in labor tax wedges.** Labor tax wedges refer to taxes paid by an average worker compared to total labor cost for the employer, with data also from OECD.

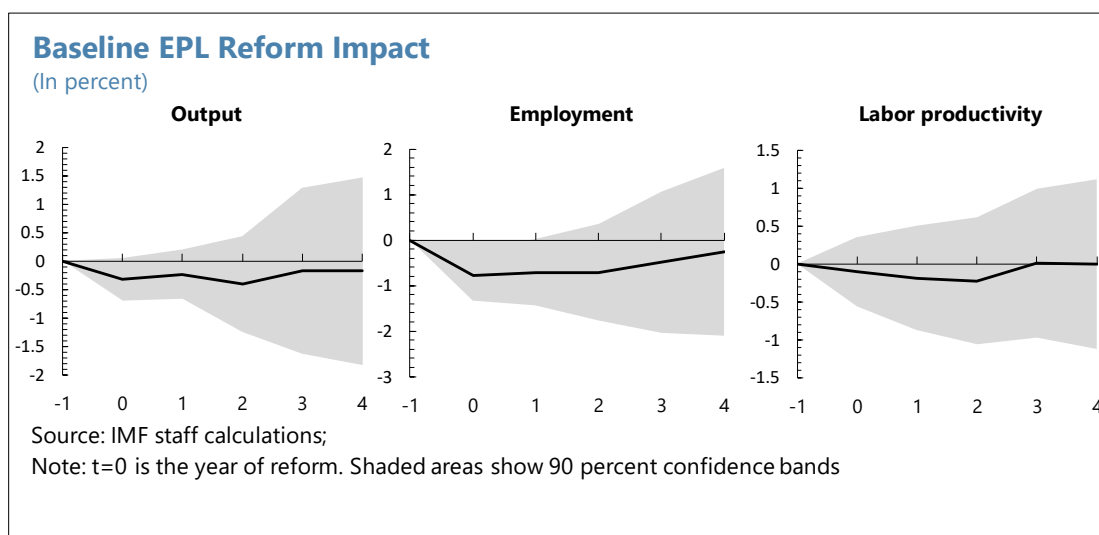
Key results

1. Employment protection legislation reforms for regular workers

Major reforms to ease employment protection for regular workers have a significant impact on medium-term output and employment after controlling for economic conditions. Specifically, our empirical estimates suggest that major EPL reforms for regular workers during economic expansions increases both output and employment by about 5 percent on average over the medium term. The estimated reform effect is positive in good times but could become contractionary in periods of slack. This asymmetric effect could be explained by the difference in firms' hiring incentives in good and bad economic conditions (Cacciatore et al., 2016). During economic booms, firms seek to hire more, hence, EPL reforms help to facilitate human resources reallocations. During recessions, EPL reforms allow firms to lay off workers more easily, worsening the economic situation and delaying the recovery.

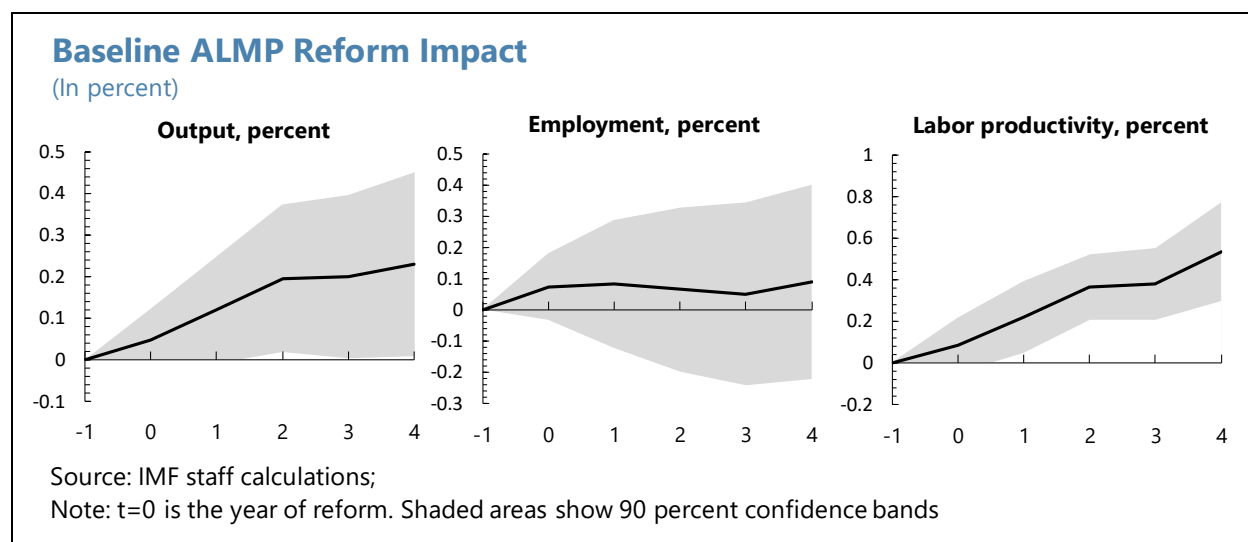


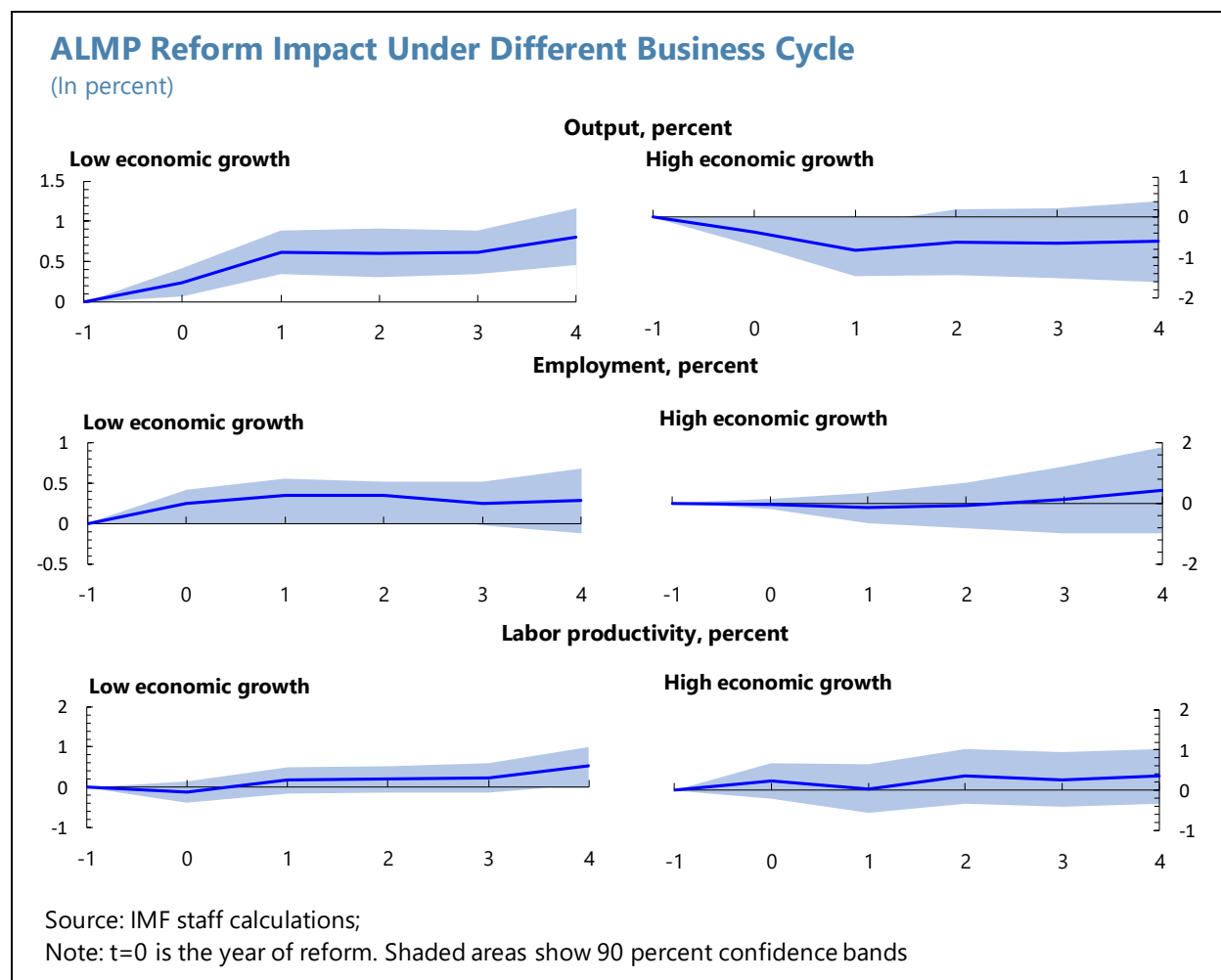
However, under the baseline regression, major EPL reforms for regular workers are not found to have, on average, a statistically significant impact on output, employment, or labor productivity. This shows that considering cyclical conditions is particularly important when engaging in EPL reforms.



2. Active labor market policy reforms

ALMP reforms show a statistically significant and positive impact on medium term output and productivity on average. This result is in line with recent literature (Goulas and Zervoyianni, 2018; Escudero, 2018) and robust after controlling for fiscal stimulus effects. The positive effect is more pronounced during recessions, with a 10 percent increase in ALMP spending raising the output level by around 1 percent and the employment level by around 0.2 percent on average over the medium term. It is worthwhile to note that the output effects turn negative during times of high economic growth, though not statistically significant. One of the reasons could be the inflationary impact of ALMP during economic upturns that could further lead to subsequent countercyclical policy responses.



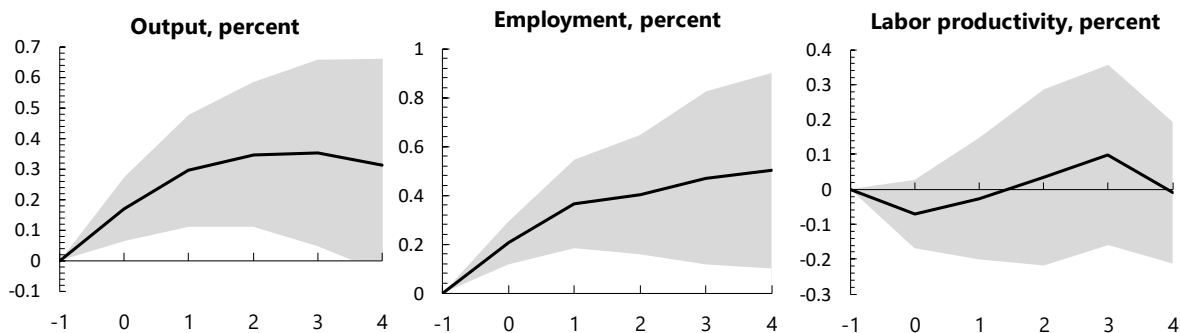


3. Tax Wedge Reforms

Reducing tax wedges yields a statistically significant and positive impact on output and employment on average in the baseline, though the results are not significant on productivity. The impacts on output and employment are more pronounced during periods of low growth. A one percentage point reduction in the labor tax wedge could raise output and employment by 0.6 percent on average during recessions. Similar to the effects of ALMP, tax wedge cuts tend to have bigger effects in bad times as these reforms often involve fiscal stimulus that are generally more effective during recessions.

Baseline Tax Wedges Reform Impact

(In percent)

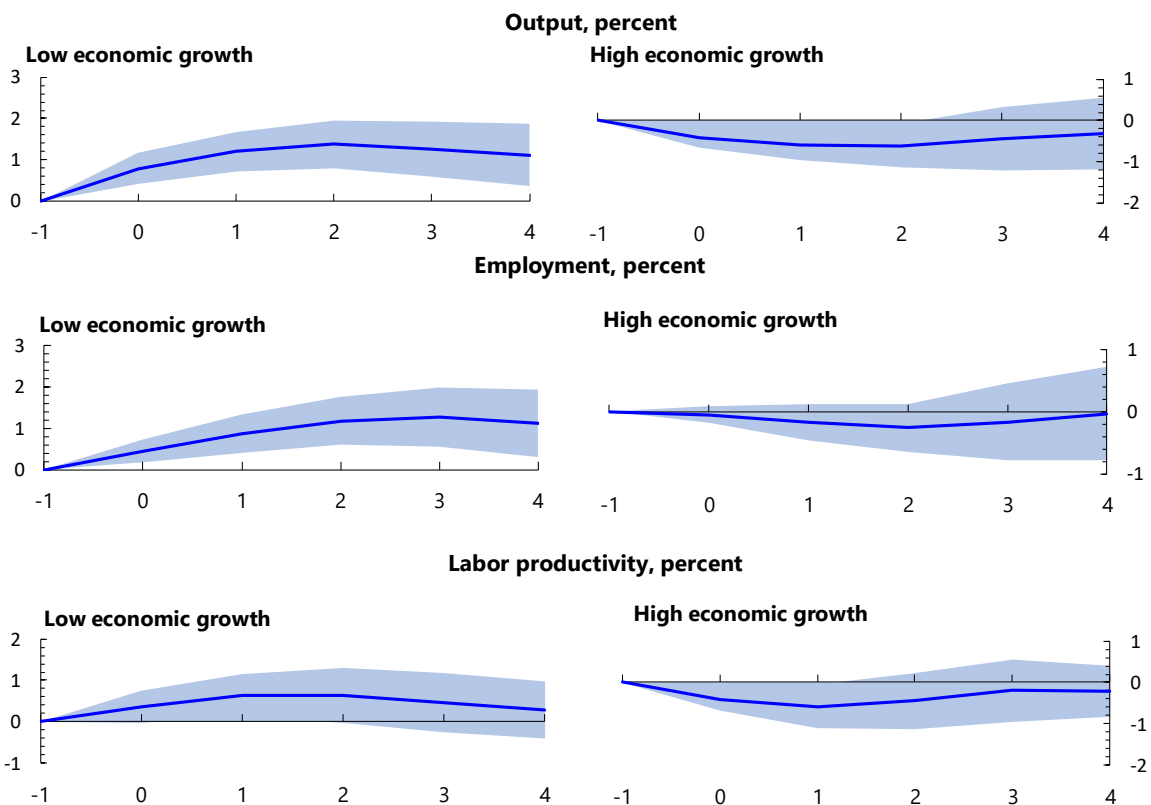


Source: IMF staff calculations;

Note: t=0 is the year of reform. Shaded areas show 90 percent confidence bands

Tax Wedges Reform Impact Under Different Business Cycle

(In percent)

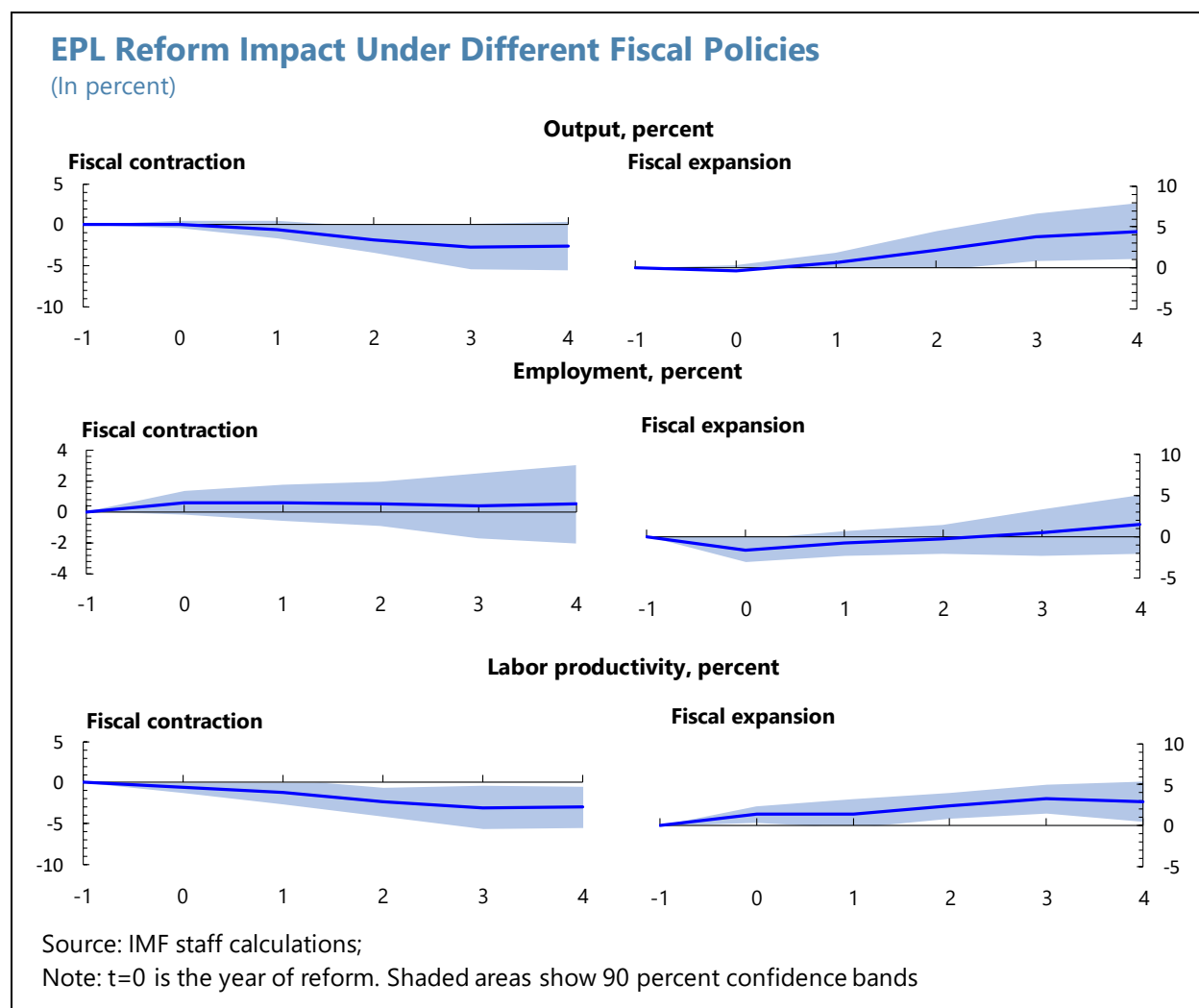


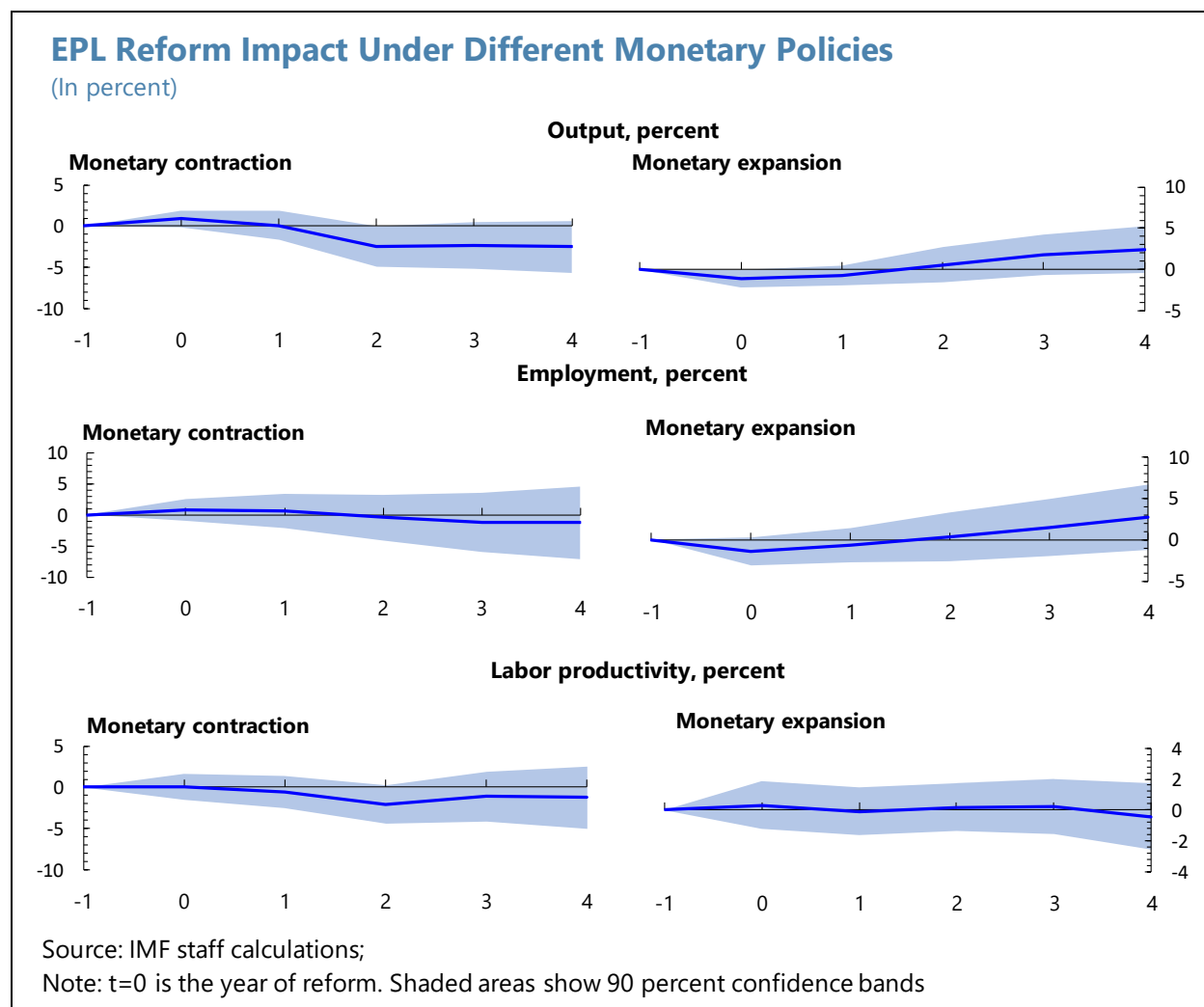
Source: IMF staff calculations;

Note: t=0 is the year of reform. Shaded areas show 90 percent confidence bands

4. Complementary fiscal and monetary policies

Further, we examine the effect of complementary fiscal and monetary policies alongside with EPL reforms for regular workers. On average, we find that EPL reforms produce higher gains when implemented alongside complementary fiscal or monetary policies relative to baseline outcomes. In particular, EPL reforms on regular workers yield a more positive and significant impact on output and labor productivity over the medium term under expansionary fiscal policies, while the results are not statistically significant under expansionary monetary policies. Supportive policies could help mitigate the short-term adverse effect of EPL reforms by facilitating efficient reallocations of labor, in addition to their direct impact on the economy. The stronger effects of expansionary fiscal policies are probably attributed to complementary targeted support to those affected groups, while monetary policy can only work on aggregate demand.





Robustness checks

To address potential endogeneity concerns, we run various extensions of the model and perform the following robustness checks:

- (1) **Cross-checking with alternative data sources:** we repeat the analysis using the OECD index on the strictness of employment legislation and the IMF structural reform database instead of the EPL reform shock variables by Duval et al. (2008).
- (2) **Controlling for additional variables:** we run the model including other potential control variables that capture important characteristics of labor markets, such as annual work hours and trade union density. Risks of other important omitted variables might exist, but this could be largely mitigated by the inclusion of country and time fixed effects.
- (3) **Alternative specifications:** we test with different lags of reform variables and other control variables.

All of the above regressions point to similar results as shown in our baseline specifications.

Caveats and micro-data evidence

The macro-data based empirical approach limits the scope of our study. There could be significant heterogeneity in the effects of labor market reforms across industries and firms. In some reform areas that are critical for Korea, including the working hours reform and switch to performance-based pay, cross-country macro data is not available. Therefore, micro-data evidence based on industry and firm level analysis would help complement our macro level findings. Hereafter, we provide a literature review of relevant studies for the two reform areas that were not captured by our empirical approach.

- **Working hour reforms.** Countries with long hours of work are often associated with low unit labor productivity, measured as GDP per hour worked. To some extent, this may reflect the preference of workers in less productive countries to work longer hours in order to raise sufficient income to meet their basic needs. That said, there is longstanding evidence in the literature that reductions in long working hours could increase productivity by improving employee morale, physical health, and operational efficiency (Bosch and Lehndorff, 2001; Golden, 2012). In addition, several studies also find that flexible work time arrangements will benefit both employees (Williams et al. 2000) and employers (Koekemoer and Downes, 2011), with reported higher productivity gains for firms with more flexible working time arrangements. As highlighted by ILO (2019), the desirable working time arrangements should be a balanced arrangement that meets different economic and social needs, including health, family, gender equality, productivity and also allowing for more choice of workers.
- **Performance-based pay reforms.** Firm-level data in the US (Lazear, 2000) shows that higher productivity gains are associated with the shift to performance pay reform. But there are certain preconditions to be met in order to maximize the reform gains, as illustrated by a study on Japanese firms (Miyamoto and Higuchi, 2007), which shows that reforms should be complemented with a fair procedure of the performance evaluation system. There are also industrial differences (Meulenaere, 2016), with

Working Hours and Labor Productivity
(Based on a sample of 38 OECD countries during 1980-2021)



Sources: OECD and IMF staff estimates.
Unit: X-ray in hours; Y-ray in USD, constant prices, 2015 PPPs.

performance-based pay more effective in core manufacturing industries—where tasks tend to be standardized and employee performance is more readily measurable—while seniority-based pay is more effective in services, where, typically, employee commitment and loyalty are more desirable.

4. Implications for Korea's Reform Plans

Labor market rigidity is a long-standing issue in Korea. Employment protection is stricter than the OECD average, with more restrictive regulations on individual dismissals. Non-regular workers account for a significant share of total employment, among the highest in the OECD, with lower wages, fewer benefits, and less job security compared to regular workers, indicative of high labor market duality. Public spending on social protection as share of GDP is among the lowest in the OECD, notably on pensions, labor markets, and support for vulnerable groups. The wage system is largely seniority-based rather than performance-based, with the flexibility of wage determination relatively lower than in other advanced economies. In addition, Korean workers face long working hours and inflexible working hour arrangements.

The authorities' intended reforms focus on key bottleneck areas where Korea lags relative to OECD peers. While concrete implementation plans are still being formulated, there is a need to balance different economic and social considerations in the design of these reforms. In particular, the design and implementation of the work hours reform should balance the needs of workers and enterprises, ensure sufficient dialogue with stakeholders, and be carefully communicated. More balanced working-time arrangements could help improve work-life balance and encourage female labor participation, while also meeting the fast-evolving industrial demands. The intended switch to the performance-based pay should incentivize private sector participation while also taking into account cross-industry differences regarding the impact of such reforms on productivity. Reforms to tackle labor market duality should prioritize easing employment protection for regular workers while also ensuring protection of vulnerable groups, including by strengthening social safety nets and active labor market policies.

The sequence and prioritization of reforms should be carefully designed based on economic and policy conditions. In line with the findings of the empirical analysis in the paper, under the current disinflationary policy stance, reforms that are not associated with a strong contractionary or inflationary impact could be prioritized. In this regard, the authorities' focus on working hours reforms is in the right direction. With growth recovering, deregulations to reduce employment protection for regular workers can also be considered, combined with a stronger social safety net and targeted support to protect vulnerable groups during the transition. In addition, a switch to performance-based pay with an effective merit evaluation system could further increase productivity gains. In cases of adverse shocks that increase economic slack, more spending on labor markets could help support growth, including through ALMP and further enhancement of

the social safety net. Ultimately, the government should aim for a holistic plan laying out near-term and medium-term reform measures, contingent on economic and policy conditions.

Annex I. The Empirical Approach

Empirical framework

In this paper, we follow a similar approach as in Duval and Furceri (2018). Specifically, we apply the local projection method developed by Jordà (2005) to capture the nonlinearities in the dynamic response to reform shocks and produce an estimation at each time horizon up to 5 years after the reform is implemented.

The approach implies the following basic function form:

$$(1) \quad y_{c,t+k} - y_{c,t-1} = \alpha_c + \alpha_t + \beta_k R_{c,t} + \theta_k X_{c,t}^m + \varepsilon_{c,t}$$

In equation (1), the left-hand side variables are output growth, employment growth, and labor productivity growth, with c denoting country, t denoting the year of reform and k denoting the number of years after the reform. On the right-hand side, α_c is the country fixed effect, α_t is the time fixed effect. $R_{c,t}$ is the reform variable, which includes one of the following variables: (1) employment protection legislative reform dummies for regular workers, taken in the form of 1, 0 and -1; (2) employment protection legislative reform dummies for temporary workers, taken in the form of 1, 0 and -1; (3) changes in active labor market policy spending (AMLPS) in percent of GDP; and (4) changes in labor tax wedges, as measured by taxes paid by an average worker compared to total labor cost for the employer, in percent of GDP. $X_{c,t}^m$ denotes a vector of m control variables, which include two lags of the reform variable, one lag of GDP growth and a recession dummy in the form of 1 or 0, following a similar approach as Drazen and Easterly (2001) to capture the ongoing transition effect.

To understand the impact of the reform in the scenarios when reforms are implemented (1) in different states of the economy, and (2) under different stances of monetary or fiscal policy, we adopt an extended function form as the following:

$$(2) \quad y_{c,t+k} - y_{c,t-1} = \alpha_c + \alpha_t + \beta_k^L F(z_{c,t}) R_{c,t} + \beta_k^H (1 - F(z_{c,t})) R_{c,t} + \theta_k X_{c,t}^m + \varepsilon_{c,t}$$

In the extended function form, the $F(z_{c,t})$ term is added following a similar approach by Auerbach and Gorodichenko (2012) and Granger and Teravistra (1993). The $F(z_{c,t})$ term denotes a smooth transition function that takes the following form:

$$F(z_{c,t}) = \frac{\exp(-\gamma z_{c,t})}{1 + \exp(-\gamma z_{c,t})}$$

Where $z_{c,t}$ is an indicator of the state of the economy or the stance of monetary or fiscal policy. The state of economy is measured by real output growth. Stances of monetary and fiscal policy are measured by the exogenous monetary or fiscal policy shocks. This transition function is used because compared with adding interaction terms, this method allows the reform effect to transition smoothly between different states of the economy or stances of monetary or fiscal policy.

To estimate the effect of EPL reforms under different macroeconomic policies, we follow the approach used by Auerbach and Gorodnichenko (2012). The fiscal policy shocks are estimated by actual fiscal spending compared to the forecast fiscal spending of the OECD Economic Outlook. The monetary policy shocks are estimated by the forecast error of interest rates that is orthogonal to unexpected shocks in output and inflation. Specifically, they are estimated as the residuals of a pooled OLS regression of inflation and output shocks on interest rate shocks. The forecast variables are obtained from the Consensus Forecast and are compared against their actual outcomes from the World Economic Outlook. They are proxies to the unexpected changes in fiscal and monetary policies that are not related to growth, inflation, and other economic conditions.

Impulse response functions (IRF) are computed by running a matrix of OLS regressions. The estimated β_k and the variance were used to construct the impulse response graphs in the results section for time horizon from zero to five years after the reform.

Dataset and features

This study leverages data sets from various sources. The major variables such as real GDP, expected GDP, employment, labor productivity (or total factor productivity in robustness tests), active labor market policy spending, labor tax wedges, and share of temporary workers are sourced from OECD data. It covers 26 OECD countries including Korea over a time span between 1970 to 2020. The employment protection legislation reform shock variables are created and updated based on the approach by Duval et al. (2008). Regulatory actions are examined through text analysis from OECD economic surveys, supplemented by judgment of IMF country economists. This indicator is also compared against the OECD's strictness of employment protection indicator in the robustness check.

Appendix Table 1. List of Key Variables

Variables	Description	Unit	Time	Country	Mean	STD	Min	Max	Korea Average
Output	Annual real GDP growth	Percent	1971-2020	OECD	2.7	3.1	-15	21	6.5
Employment	Annual employment growth	Percent	1971-2020	OECD	1.0	2.3	-13	22	1.6
Productivity	Annual labor productivity growth	Percent	1971-2020	OECD	1.6	2.7	-23	18	3.9
EPL	Whether a major employment protection reform was taken place (1 is a major reform to reduce the strictness of employment protection; 0 means no reform; -1 is a reform reversal to increase the strictness of employment protection)	Dummy (0,1,-1)	1970-2020	OECD	0.13	0.19	-1	1	0.2
Tax wedge	The gap between the net amount that employees take home and the total cost paid by the employer	Percent	2000-2020	OECD	36.1	10.7	7.0	57.1	19.7
Active labor market policy	Average government active labor market policy spending	Percent of GDP	1998-2020	OECD	0.56	0.41	0	2.3	0.33

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