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**Korea's Paradigm Shift for Sustainable and Inclusive Growth: A Proposal**

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**Abstract**

Korea is facing mounting economic challenges. Productivity growth has been on a trend decline amid demographic headwinds, while the societal demand for inclusive growth has been on a steep rise. Furthermore, the government-led unbalanced growth model—which served Korea well in the past—has become less effective and politically palatable in recent years. As such, Korea needs a major paradigm shift to embark on a new sustainable and inclusive growth path. But policy response has been modest at best with no major reforms being implemented over the past two decades. We propose a paradigm shift in Korea's economic framework, involving a *simultaneous* big push for greater economic freedom and stronger social protection within the parameters set by long-run fiscal sustainability. We also provide a detailed account of structural reforms to boost economic freedom and sustainable funding plans for stronger social protection.

JEL Classification Numbers: H53, H63, O20, O30

Keywords: Economic freedom, social protection, structural reforms, fiscal sustainability

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## I. INTRODUCTION

Korea has long been praised for its remarkable economic success. Emerging from the ashes of the Korean war (1950–53)—which devastated virtually all production capacity—it became an advanced economy by the end of the last century. In doing so, Korea is the only country in the world which transformed itself from an aid recipient to an aid donor during the post-war period. When it fell victim to the Asian financial crisis in the late 1990s, Korea's economic resilience was proven again by the rapid post-crisis recovery through structural reforms and restructurings. However, Korea's proven track records of success have been put to test since 2000s. Although the economy managed to grow faster than other advanced peers, economic growth has been slowing. This is due, in part, to demographic headwinds, growth convergence, and post-crisis global recession.

Accompanying this decline in economic growth was the emergence of new challenges, many of which are structural in nature. A myriad of regulations, often motivated by social concerns about income inequality, deterred innovations and productive investments, while labor market rigidities—particularly pronounced among large firms—and dualities impeded corporate sector restructuring and rendered the resulting corporate losses to be socialized at the expense of taxpayers. The economy has become polarized with diverging growth performances among sectors and regions within the country, and with increasingly uneven income distributions. Economic polarization has in turn undermined social cohesion, an essential ingredient needed to address difficult and politically charged structural issues.

Looking ahead, Korea is expected to face even stronger headwinds from a shrinking and aging population, slowing productivity growth, and more limited policy space under rising political pressure for higher non-discretionary social spending to promote equity. With regards to aging, current projections suggest that Korea will become the second oldest country in the world (only next to Qatar) by 2060, with population beginning to shrink from 2030. Age-related public spending (for instance, health care spending) will rise rapidly while the national pension fund is projected to be depleted by 2060. With regards to productivity growth, data suggests that Korea is no exception to the global productivity slowdown which started well before the global financial crisis and has continued since then (Adler et al., 2017). Lastly, with regards to inclusive growth, domestic imbalances have grown and entrenched along various dimensions—between large and small firms, between manufacturing and services sectors, and between the metropolitan area and other localities—placing pressure on the government to ensure more inclusive growth.

Korea needs a major paradigm shift to address these headwinds and to embark on a more balanced and inclusive growth path. Furthermore, this needs to be done urgently before the economy worsens and the situation becomes more difficult to recover. The idea of a paradigm shift in Korea's growth model is not new, and has in fact been discussed over the past two decades. But these ideas have not translated into tangible actions largely because of failure to gather necessary political support. Under such circumstances, it is not surprising to find that policy responses to emerging structural challenges have been short-sighted, focusing on alleviating symptoms rather than curing the underlying causes.

Korea's failure to break through the political gridlock seems attributable to divided views about what went wrong in the past and what should be done going forward. Underlying such a divide has been a difference in views—right or wrong—on the question of whether structural reforms to promote growth will inevitably worsen income inequality and whether any efforts to reduce such inequality will, in turn, be harmful to growth. These divergent beliefs were, in turn, driven by the legacy of government-led unbalanced but strong growth—which continued for several decades and often in disconnect with rapid political democratization after the late 1980s—and more recent subpar growth in the context of stronger protections against rising inequality. Indeed, they continued to prevail even when Korea began debating about a paradigm shift to a new growth path in the aftermath of the 1997–98 financial crisis. As the debate lacked an overarching framework that could communicate clearly to both sides of the divide whether any paradigm shift would need to address any growth versus inequality trade-offs and if so how, however, neither side of the social divide changed their belief. In consequence, no bargaining equilibrium could emerge at the societal level, even when the economy has faced with declining growth and rising income inequality.

In this paper, we propose a framework to help assess the necessary shift in Korea's growth paradigm, with this framework allowing us to evaluate specific reforms and communicate their welfare contributions to the public. Taking sustainable and inclusive growth as the development goal, the proposed framework envisages a *simultaneous big push for greater economic freedom—through structural reforms—and stronger social protection* within the parameters set by long-run fiscal sustainability requirements. The objective of sustainable growth calls for a Schumpeterian view, in which economic freedom to work and invest is pivotal in promoting productivity growth via creative innovation and destruction. The objective of inclusive growth constitutes, in and by itself, a social choice particularly important for Korea, as the legacy of unbalanced growth continues to cast a long shadow over Korea's income distribution while the society's political choices reveal increasingly larger weight on inclusiveness.

Although there may be a tradeoff, at least in the short- to medium-run, between promoting economic freedom and increasing social protection, recent empirical findings suggest that any such tradeoffs may be less severe than initially thought (Ostry et al., 2014). For Korea, there are good reasons to expect that increasing economic freedom and social protection simultaneously could even be mutually reinforcing—reinforcing enough to convince both sides of the social divide that the proposed framework is indeed a positive-sum game.

As discussed later in greater detail, the proposed framework for Korea calls for comprehensive structural reforms and deregulations to increase economic freedom. Productivity gains and growth dividends from structural reforms will help to expand the fiscal envelope for social protection without undermining fiscal sustainability. Moreover, given empirical evidence that innovation tends to improve social mobility (Aghion et al., 2015; Akcigit et al., 2016), structural reforms to stimulate innovation could have indirect positive effects on inclusive growth.

Conversely, increasing social protection can contribute positively to sustainable growth, particularly in countries where social protection is low. We emphasize that legal protection of economic freedom alone would not necessarily guarantee that economic freedom can and will be used by all for innovation and creative destruction. Innovation may yield high return if successful, but the attendant risk of failure would also be high. Creative destruction would likely result in temporary loss of jobs and income before they yield efficiency gains. For those who cannot manage the consequences of failure or temporary income loss due to financial or other constraints, therefore, economic freedom to innovate would in fact be out of their reach, while creative destruction could be a real threat to their survival. In this context, adequate social protection for the underprivileged is crucial to make economic freedom affordable to all.

Reflecting on our own experiences as policymakers and practitioners, we focus on specific structural reforms and social protection measures that we believe are of high priorities in the context of Korea. For structural reforms, we focus on labor market reforms to reduce rigidities and dualities and active labor policies, the liberalization of financial services, the removal of controls on real estate acquisitions by large firms, and the further liberalization of foreign direct investment and immigration. With regards to social protection, we highlight the importance of increasing unemployment insurance benefits and stabilizing low-income households' cost of living. Although specific to Korea, these measures could provide useful guidance to other countries facing similar challenges.

While the gross fiscal cost of the improved social protections would be sizeable on the order of 4 percent of GDP per year over the period of 2018–22, the net cost is more modest at less than 2 percent of GDP per year, and public debt dynamics are unlikely to be affected. This arises as the stronger social protections would occur alongside some expenditure restructuring and tax increases. Furthermore, stronger social protection would facilitate structural reforms and higher growth, easing the fiscal constraint. A simple debt sustainability exercise suggests that there would exist some room for debt financing if structural reforms raise permanently the real GDP growth rate.

The rest of the paper is structured as follows. Section II briefly summarizes structural challenges that Korea needs to address to ensure sustainable and inclusive growth. Section III discusses the operational framework of the paradigm shift which is economically sustainable and politically viable, reflecting on analytical and empirical findings from the literature surveyed in the Appendix. In Section IV, we discuss structural reforms and deregulations that would serve Korea well to increase economic freedom for innovation and creative destruction. Section V provides a detailed account of social protection measures, together with estimates of related spending needs and available funding sources. Section VI discusses the implications of the proposed framework on long-run fiscal sustainability by using a simple debt sustainability analysis. Section VII concludes.

## II. KOREA'S STRUCTURAL CHALLENGES: UNADDRESSED FOR TOO LONG

Korea is facing multiple challenges which require structural remedies. The most notable are a trend decline in economic growth and rising demographic headwinds which could result in Korea's population becoming old before they get rich. Moreover, as corporate profitability declines in line with growth slowdown, a growing number of firms are under financial stress. Multilayered business regulations—which are often motivated by social, rather than economic, considerations—are slowing job creation and corporate investment. Labor market rigidities and dualities have been a source of allocative inefficiency and weakening social cohesion.

### *Economic growth*

The growth rate of real per capita GDP has been on a trend decline (Figure 1). This growth slowdown appears to be broadly comparable to that experienced by Japan, which has experienced low growth and deflation for two decades or so. Given the expected demographic headwinds, the downward trend in per capita GDP growth is less likely to stabilize, let alone reverse its course, unless counteracting reform measures are undertaken to boost productivity growth and allocative efficiency. These reforms are particularly important as most of the recent decline has been driven by a decline in total factor productivity (TFP) growth (Table 1).

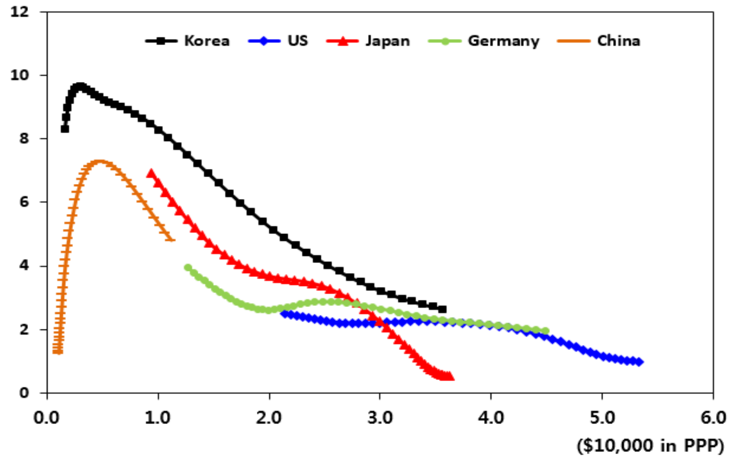
Demographic headwinds are adding further challenges to economic growth. Korea is one of the fastest aging countries in the world and already has an old population by global standards. Indeed, the elderly are projected to account for 20 percent of Korea's total population in less than a decade. As population aging has been underway in parallel with declining fertility rate, it has posed daunting macroeconomic challenges in terms of growth, productivity, and external balances.

**Table 1. Growth Accounting for Korea: 2001–15**
(in percent)

| | Real GDP | Capital | Labor | TFP |
|---|---|---|---|---|
| 2001–05 | 4.7 | 2.1 | 1.0 | 1.5 |
| 2006–10 | 4.1 | 1.8 | 0.5 | 1.8 |
| 2011–15 | 3.0 | 1.4 | 1.0 | 0.5 |

Source: KIS-Data Base

**Figure 1. Per capita GDP Growth by Income level**



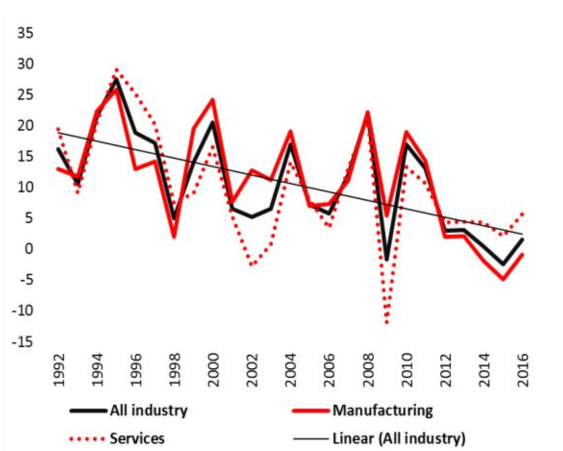

Source: Authors' calculations

Not surprisingly, declining growth has been accompanied by worsening corporate profitability and a growing number of firms under financial stress. To be specific, the growth rate of corporate revenues declined to 0–5 percent by 2015, down from 15–20 percent in the early 1990s, in a large sample of externally-audited firms (Figure 2, panel A). Over the same period, the operational profit ratio of those firms also fell from about 6 percent to 4 percent (Figure 2, panel B). Worsening corporate profitability has resulted in financial stress in a growing number of firms. As of 2016, so-called zombie firms with the interest coverage ratio—the ratio of operational profits to interest expenses—of less than one for three consecutive years accounted for 13 percent of all firms. Furthermore, they accounted for 9 percent of firms in the manufacturing industry, and alarmingly, 17 percent in the service industry.

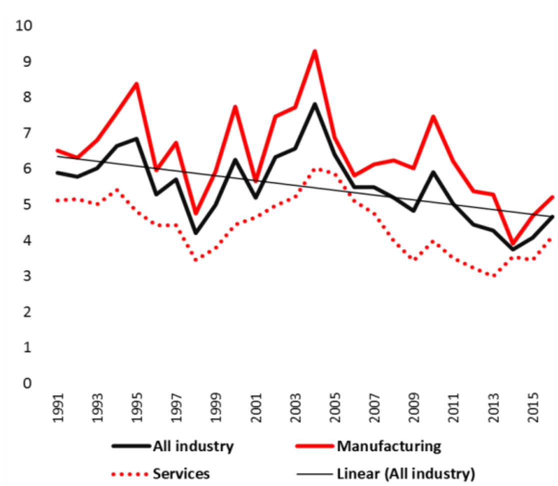
**Figure 2. Corporate Revenue Growth and Profitability**

(In percent)

A. Corporate Revenue Growth




B. Corporate Profit Ratio

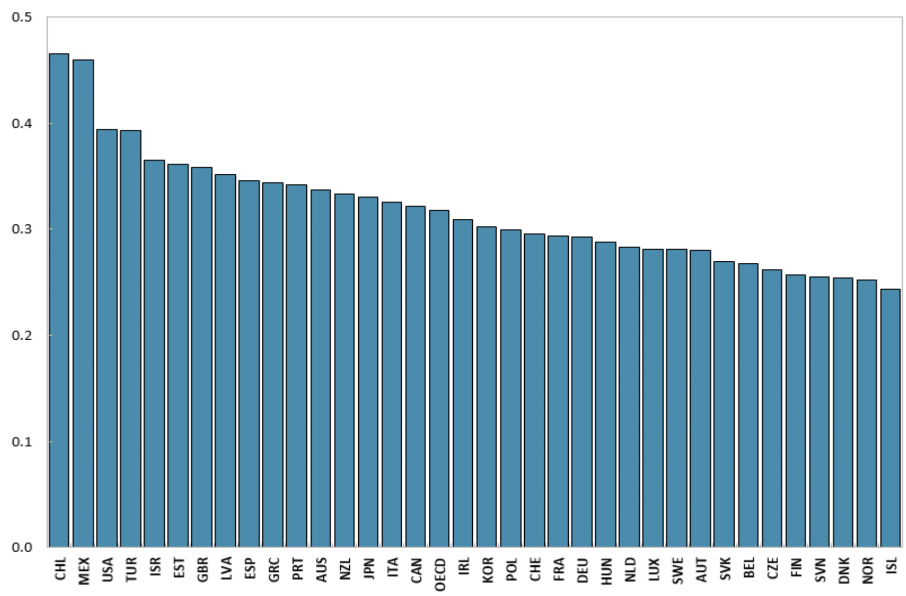



Source: Authors' calculations; KIS-Data Base

***Income distribution and social mobility***

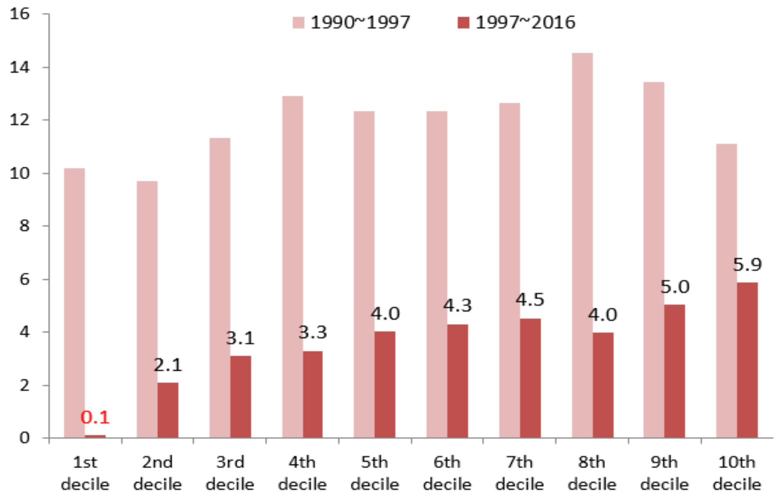
While Korea remains close to the OECD average in international comparison of income inequality, this hides growing inequality domestically (Figure 3). In particular, the growth rate of labor income has been declining relative to profits since the mid-1990s, resulting in a steady decline in labor income share. During the period of 1990–1997, labor income growth was high at over 10 percent and relatively even across income levels. However, it fell sharply and became uneven across income groups during the past two decades. Indeed, workers in the bottom 10 percent of the income distribution have experienced virtually no growth in their incomes, while workers in the top 10 percent of the income distribution experienced growth of about 6 per cent per annum (Figure 4). Consequently, the income share of the top 10 percent of the income distribution has increased from less than 30 percent in the 1970s to 45 percent by 2013, a level broadly comparable to that of the United States and significantly higher than in Japan and Germany (Figure 5). Although similar trends are clearly visible in other advanced economies, Korea stands out in term of the pace at which this concentration of income has occurred.

**Figure 3. International Comparison of Income Inequality: Gini Coefficient**



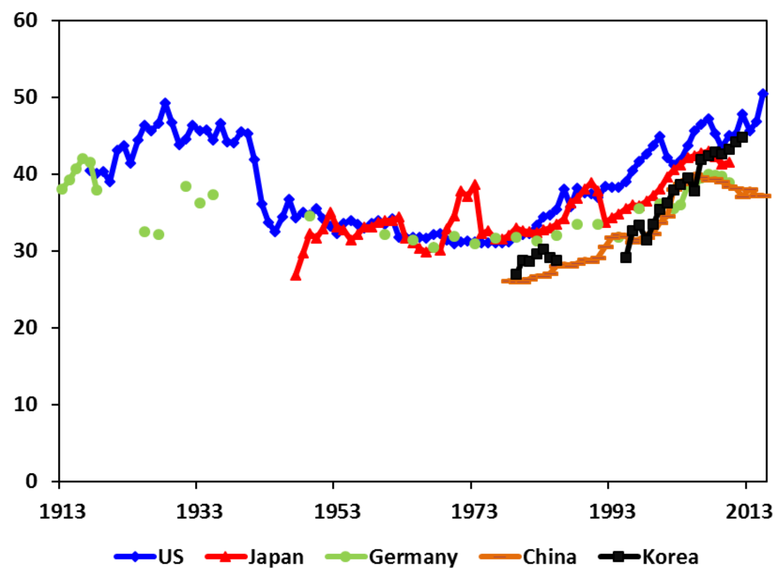

Source: OECD Income Distribution Database

**Figure 4. Labor Income Growth by Income Group**
(in percent)




Source: Authors' calculations; National Statistical Office of Korea

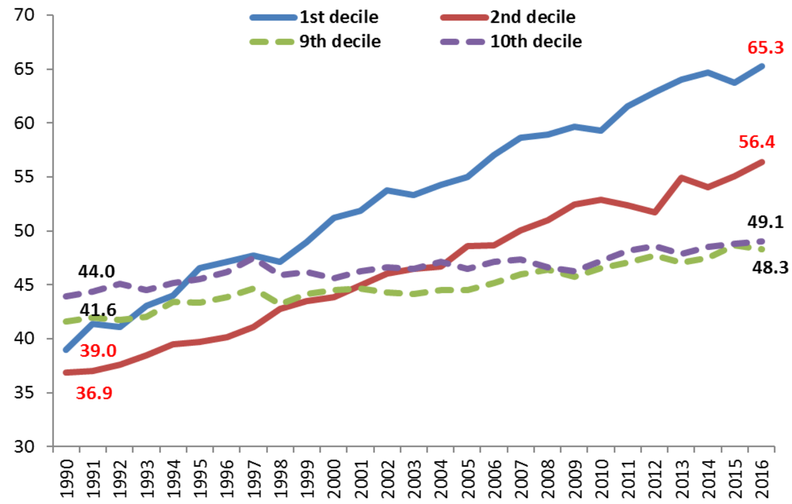
**Figure 5. Income Share of Top 10 percent**
(in percent)




Source: Authors' calculations; OECD Database

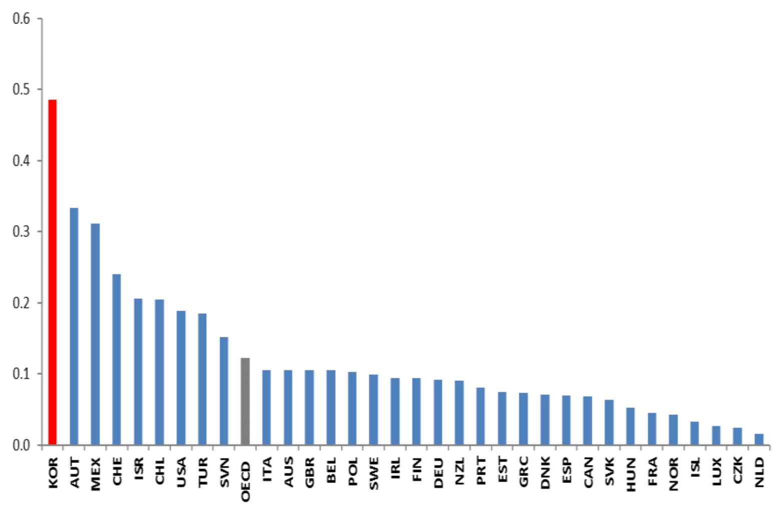
The evolution of the income distribution has also been interacting with the trend of population aging. The average age of those in the bottom 10 percent of the income distribution has increased rapidly from 39 years in 1990 to 65.3 years by 2016. In contrast, the average age of the top 10 percent has remained relatively stable over the same period (Figure 6). This has reflected the growing amount of poverty amongst the elderly, driven by the fact that the baby boom generation is retiring with inadequate personal savings and public pensions. Indeed, Korea dwarfs other OECD countries in terms of the poverty rate of the elderly population (Figure 7).

**Figure 6. Changing Age Profile of Income Group**




Source: Authors' calculations; National Statistical Office of Korea

**Figure 7. Poverty Rate of the Elderly Population**



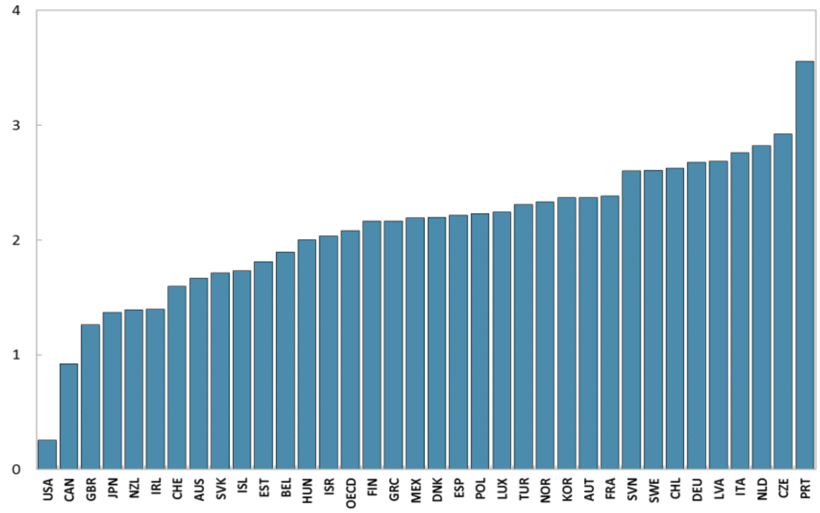

Source: OECD

### *Market rigidities and regulatory obstacles*

Labor market rigidities have been a source of allocative inefficiency by impeding the movement of productive resources from low- to high-productivity firms or sectors. Korea ranks high in terms of employment protection index—both for regular and temporary employment—and especially so among advanced economies (Figure 8). Of particular note, although unionized workers account for only about 10 percent of total workers, their prevalence in large firms mean that their wage setting behaviors have an exaggerated effect on the economy given wages in large firms have been used a benchmark for wage setting by small and medium enterprises (SMEs).

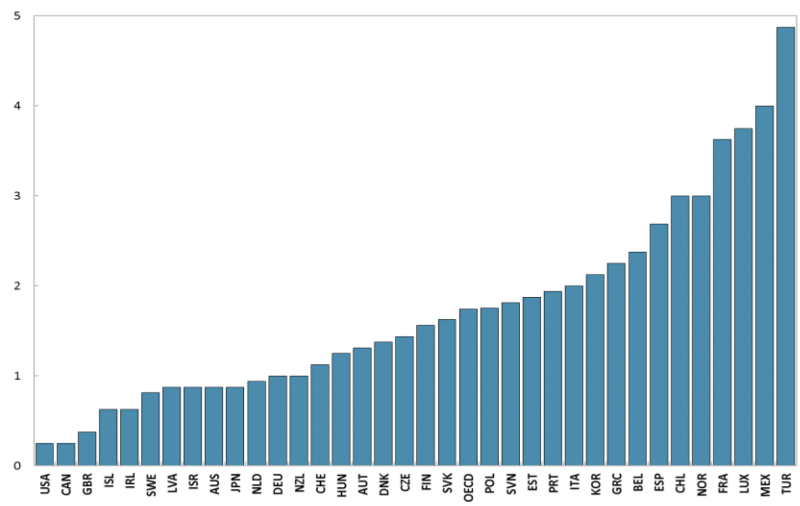
**Figure 8. Employment Protection Index (2012)**

A. Regular Workers




Source: OECD Employment Database

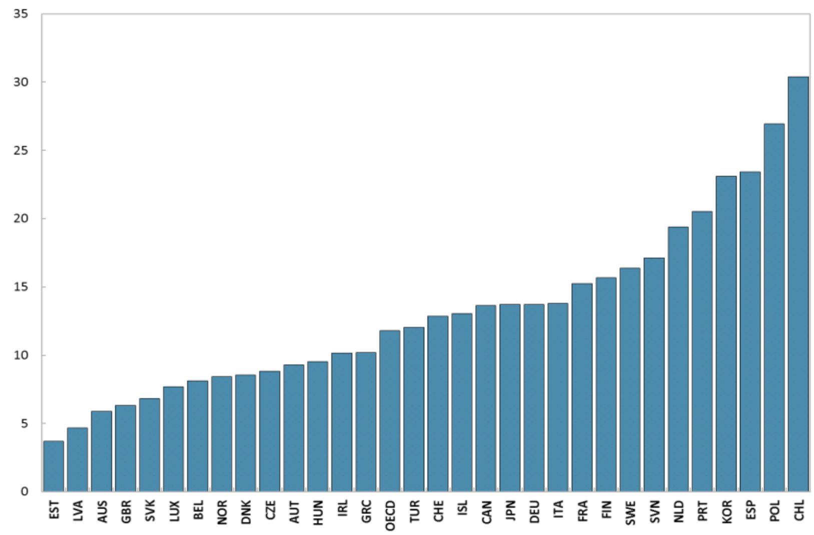
B. Temporary Workers




Source: OECD Employment Database

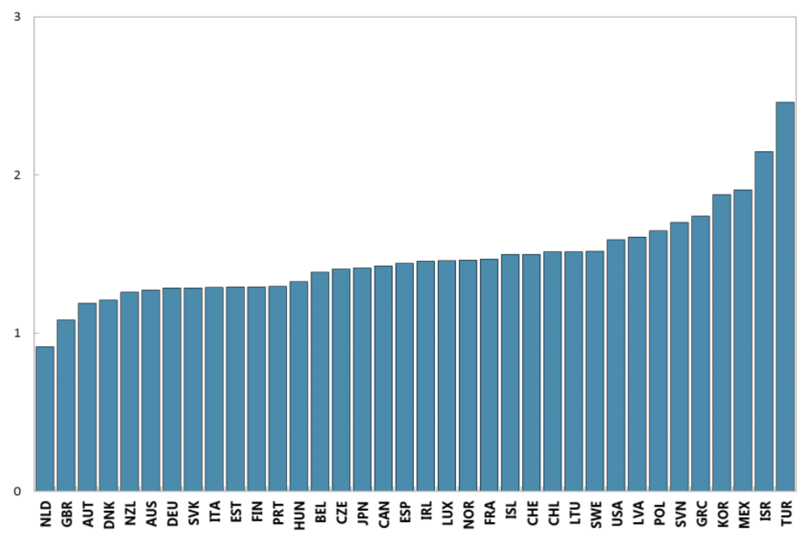
Labor market rigidities arising from strong employment protection (particularly for regular workers) have also contributed to an increasing gap between the wages of regular and nonregular workers and a large increase in temporary employment (Figure 9). This has also contributed to labor disputes and strikes. During the period of 2012–16, for instance, an average of more than 100 strikes took place per year, incurring annual loss of 940,000 full working days. As to product market regulation, Korea again stands out in international comparison with heavy regulations, including entry barriers (Figure 10).

**Figure 9. Share of Temporary Employment (2012)**
(in percent)




Source: OECD Employment Database

**Figure 10. Product Market Regulation Index (2013)**




Source: OECD Product Market Regulation Database

These structural challenges have remained unaddressed for too long, dragging down growth, discouraging competition and innovation, and increasing social tensions between generations, regions, and sectors. Although structural reforms are never easy, it is important to understand the economic and political context in which Korea has struggled to address these challenges in a timely manner. In the next section, we discuss an operational framework of Korea’s paradigm shift for sustainable and inclusive growth that can be implemented through democratic decision making.

## III. RETHINKING KOREA'S PARADIGM SHIFT

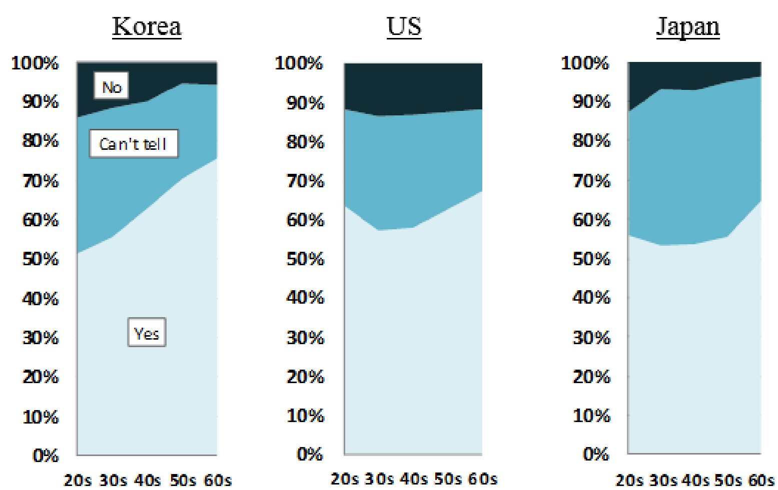
An early national debate on shifting Korea's growth paradigm dates back to the late 1990s when Korea was engulfed by the Asian crisis. The Fund-supported program for Korea envisaged a major regime change in the macroeconomic framework from a de facto peg to the US dollar to a floating exchange rate regime coupled with an inflation targeting framework. A number of structural reforms and corporate restructurings were also important ingredients of the program. Furthermore, the capital account was liberalized to foreign investment, and corporate governance reforms improved transparency and information disclosure, paving the way for the stock market to emerge as a key source of corporate funding and investment. Large business conglomerates were required to reduce the debt-to-equity ratios, and non-viable banks were either recapitalized by using fiscal resources, or merged into other viable banks. Labor market rigidities were tackled by the so-called Tripartite Committee formed by representatives of business, labor, and the government. But labor market reforms produced only limited progress by allowing firms to lay off workers only if firms are deemed nonviable without layoffs.

Since the late 1990s, however, no major reforms have been undertaken even though remaining and newly created inefficiencies have surfaced. Labor market rigidities have continued to weigh on corporate investment and job creation, while financial markets have been buffeted by multi-layered regulations and government interventions introduced, in many cases, for policy purposes unrelated to financial stability or risk management. Likewise, entry barriers have been raised or newly introduced in product markets, particularly in retail businesses and distribution services. Large firms were restricted in locating their production facilities in the Seoul metropolitan area where availability of high-skilled labor is higher than in other regions, again for concerns about regional imbalances in economic development—especially between the Seoul metropolitan area and other regions. It is not surprising to find that unduly regulated and even reduced economic freedom of entrepreneurs has impeded domestic job creation, corporate investment and, more importantly, innovations and productivity growth.

Against the backdrop of declining productivity growth and reduced and uneven potential for job creation across sectors, issues on distribution have taken a center stage as much, if not more, as those on growth. In due course, social tensions have increased at various dimensions—e.g., between generations, between regions, between business and labor, between high and low income groups, and so on. Such tensions have weakened social cohesion which is actually needed to find socially acceptable solutions. In retrospect, the financial crisis of 1997–98 was a turning point in Korea and has awakened the society to pay much greater attention to distribution issues. In particular, before this point, the majority of society seems to have supported the notion that "increasing the pie" was the priority, that large exporting firms needed to be the leading engines of growth, and that this could result in worsening inequality. After this point, however, some—although not all—in society began to question the effectiveness and even the fairness of this strategy given that the financial crisis was rooted in financial imprudence of large business conglomerates and banks (regulated by the government), while small non-exporting firms and consumers viewed themselves as innocent bystanders.

Despite challenges arising from the decline in growth and rising social concerns about inequality, no major reforms have been undertaken to address these challenges. In the meantime, social cohesion seems to have weakened. Surveys suggest that younger Korean generations are substantially less certain that hard work drives success than their elders (Kim, 2015a). This result is in sharp contrast to relatively even responses across generations in Japan and the US (Figure 11).

**Figure 11. Public Perception about Key Proponent of Success**




Source: Kim (2015)
Note: Each panel shows the distribution of the responses (among "yes", "cannot tell", and "no") from a survey which asks if the respondent thinks hard work is the most important proponent of success.

What lies behind Korea's apparent failure to escape from the slowing growth and weakening social cohesion despite each incoming government appreciating these challenges? To answer this question, it is important to understand the political and social context in which reform discussions were made. An apparent factor seems to be the growing social divide in views on what went wrong in the past and what should be done going forward.[2]

As alluded to above, this in turn arose from an underlying such social divide on whether promoting economic freedom for sustainable growth necessarily involves increasing income inequality (and that policy efforts to reduce income inequality will inevitably hurt growth). Even when Korea began discussing a paradigm shift to a new growth path in the aftermath of

[2] Diverse and opposing public opinions are not necessarily harmful to consensus building, and could in principle be a healthy sign of maturing democracy in Korea. Indeed, Korea has made notable progress, albeit not as smooth as hoped, in its political democratization since the late 1980s. All changes of central and local government have occurred via transparent and democratic election process, political freedom was enhanced dramatically, and checks and balances were instituted in the constitution.

the 1997–98 financial crisis, neither side of the divide changed their beliefs because the discussions lacked an operational framework that can clearly communicate how the paradigm shift would work and what benefits it would bring to them.

Given this historical background, it is now evident that Korea's paradigm shift can happen only if such a change is not only economically sustainable, but also politically viable through bringing both sides of the divide to an agreement. We propose such a framework. Specifically, the proposed framework envisages a *simultaneous big push for greater economic freedom and stronger social protections*, both within the parameters set by long-run fiscal sustainability requirements. On the one hand, the objective of sustainable growth calls for a Schumpeterian view, in which economic freedom to work and invest is pivotal in promoting growth. On the other hand, the objective of inclusive growth constitutes an important social value, particularly in Korea where the legacy of unbalanced growth is casting a long shadow on the distribution of income and where the population's (revealed) preferences are placing increasingly larger weights on inclusiveness.

*Theoretical support*

As discussed in the Appendix, economic theory does not provide a clear answer to the relationship between social inclusion and economic growth. Some inequality may affect growth positively by incentivizing innovation and entrepreneurship. Thus, increasing social protection for the underprivileged, which would reduce inequality, could undermine growth as increased social protection may require larger distortionary government interventions. Too much inequality, however, may be harmful to growth as it could deprive the underprivileged of the ability to stay healthy and accumulate human capital, and also because it could generate political and economic instability which tends to discourage investment and weaken social cohesion needed to address difficult economic challenges and shocks. As such, the relationship between inequality and growth is likely to be nonlinear. Regarding empirical evidence, earlier findings based on presumptive indicators of redistribution suggest that redistribution could be detrimental to growth. But more recent careful analysis finds that lower net inequality (after taxes and transfers) is robustly correlated with faster and more durable growth, for a given level of redistribution, and that redistribution appears generally benign in terms of its impact on growth (Ostry et al. 2014).

Given these findings, a simultaneous push for greater economic freedom and social protection would be less prone to possible tradeoff between redistribution and growth. A more flexible economy might encourage greater investment and hence more favorable social outcomes. Furthermore, if greater economic freedom translates into higher sustainable growth, the resulting increase in fiscal space will make it easier to fund public transfers and spending for income redistribution and social protection, without undermining long-run fiscal sustainability. Greater social protection would likely facilitate stronger growth by allowing more people to bear the higher attendant risks of failure, but also the higher returns from success. That is, while creative destruction would yield efficiency gains, adequate social protection for the underprivileged is vital to make sure that they can make the best of the greater economic freedom rather than suffer from setbacks in employment and income.

*Realism in Korea's case*

How well does this story of economic freedom fit to Korea? The structural reform agenda is long, and has been well known. The key guiding principle for structural reforms should be increasing the allocative efficiency of the economy by allowing productive resources to flow freely from low productivity- to high productivity-firms and sectors. Given that Korea has been ranked at one of the countries with the highest rates of R&D investment, this would suggest that the observed productivity slowdown may be attributable to low and perhaps even declining allocative efficiency. In this respect, there exists significant potential for productivity increases through improving allocative efficiency in labor and financial markets.

Deregulation beyond labor and financial markets could also significantly improve allocative efficiency and productivity growth. Despite Korea being one of the most advanced nations in terms of information technology, its business application has been lagging because of regulations and the fear of attendant risks, such as information security breach. Likewise, acquisition of real estate by large firms have been regulated, particularly in the Seoul metropolitan area, largely because of concerns about growing regional imbalances between the capital city and other areas. In consequence, firms with strong prospects were restricted in expanding in the most convenient and least costly fashion. Domestic firms' ability to tap into foreign resources also needs to be improved to exploit efficiency gains. This can be done by upgrading Korea's immigration- and FDI-related policies, which would also ease some of the resource constraints faced by Korea because of its demographic headwinds. Finally, deregulations for greater economic freedom should be accompanied by strengthened surveillance on and regulatory enforcement against unfair business practices.

With regards to *direct* social protections, Korea is an advanced economy when measured by per capita income levels, but falls behind other advanced economies by a significant margin when considering the adequacy of social protection and income redistribution. As noted earlier, the poverty rate among the elderly population is highest among OECD countries, in part given the national pension system provides only minimum protection against loss of income after retirement. Unemployment insurance falls short of supporting consumption and job search activities during unemployment, and labor market duality is the highest among OECD countries with the average wage of non-regular workers being less than 30 percent of that of regular workers. Finally, Korea is ranked at the bottom among advanced economies in terms of the redistributive effects of fiscal policy as measured by the difference in Gini coefficient before and after taxes and transfers (IMF, 2017).

We would also argue that there are reasonably weak *indirect* social protections/support in Korea for even middle-income households in Korea, not to mention low-income households around housing, child care services, and college education. In the past two decades, the rate of income growth has been consistently lower than the rate of house price or rent increases.

Female participation in the labor market, an important source of growth, has been constrained by the shortage of affordable child care services. College education has now become a norm in Korea, despite concerns that Korea may have been over-investing in college education. Under these circumstances, many are burdened with expensive college tuition while those who cannot afford a college education may suffer unfair treatment in the job market and even social stigma.

Consequently, when compared to other advanced economies and viewed against the evolving preferences of society, Korea's social protection appears too little rather than too much. This suggests significant room for stronger social protection and, given the focus of our argument, allows for potentially significant benefits from greater economic freedom through structural reforms that can be made more affordable to all.

An important remaining question is how to strike the right balance between promoting economic freedom and increasing social protection. Too generous or too little protection could alternatively reduce incentives to work, discourage investment in human capital, and undermine fiscal sustainability and social stability. A careful analysis tailored to Korea's specific circumstances is needed to obtain the optimal answer for this question. While this is beyond the scope of this paper, reflecting on our own experiences as policymakers and practitioners, we offer some specific structural and institutional reforms, and supporting social protections, that would help Korea embark on both a stronger and more inclusive growth path. We also provide back-of-the-envelope estimates of the fiscal cost that the increased social protection would incur, together with specific accounting of funding sources. Although our proposed reform and social protection measures are inherently specific to Korea, they could provide useful guidance to other countries facing similar challenges, both economic and political.

In the next two sections, we discuss specific reforms and measures of social protection, together with a detailed account of spending needs for social protection and sustainable funding sources.

## IV. Structural Reforms for Greater Economic Freedom

As highlighted, Schumpeterian growth assumes that entrepreneurs play an essential role in undertaking innovations and, through creative destruction, drive productivity gains. This arises as they transform new ideas and technologies into value-added products. For entrepreneurs to play such a role, they must be able to freely hire and adjust factors of production in the best possible way to maximize efficiency, and to enter freely into product markets. Economic freedom for entrepreneurs in both factor and product markets is therefore key to achieving sustainable growth. At the same time, adequate social protections are required to support risk taking and ensure that rising inequality does not undermine growth (including through hysteresis).

In this section, we discuss specific structural reforms that, in our view, are of high priorities for Korea at the current juncture. These reforms can help increase allocative efficiency by facilitating the flow of productive resources from low to high productivity sectors. Although reforms discussed below are specific to Korea's needs, they are guided by consensus views on the benefit of structural reforms and supporting empirical evidence surveyed in the Appendix.

## A. Labor Market Reforms

Labor market reforms should have three legs. The first is to increase the freedom of entrepreneurs to adjust their employment as needed, not only over the business cycles but in response to technology developments and changes in employment practices. The second is active labor market policy support for job training and job search activities. The third is stronger social protection for the worker (and not the job), which is discussed in greater detail in the next section. For the first leg, reform priority should be given to reducing, if not eliminating, the rigidity in labor contracts and pervasive duality in the labor market. In this regard, the first step would be to remove rigid and excessive job protection for permanent employees. Regarding the second, reform priority should be given to upgrading of job training programs and administrative support for job search. In this respect, German's labor reform experiences in the 2000s would provide a useful guidance for Korea. Specifically:

- *Amend the Labor Standards Act (LSA)*. The LSA needs to be amended to allow layoffs based on good faith and transparent managerial decisions, while penalizing unfair labor practices. Specifically, the LSA would clearly define unfair labor practices and then allow layoffs insofar as these layoffs are not an unfair practice. In case of labor disputes, the burden of proof would fall upon the management. In addition, the consultation period before layoffs could be shortened to 30 business days from the current 50 business days, helping to reduce labor adjustment costs.

- *Institutionalize flexible forms of labor contracts*. Reforms would also allow greater freedom of entrepreneurs to write flexible forms of labor contracts tailored to their needs. At the same time, to ensure that the increased flexibility in labor contracts helps reduce duality in the labor market, any discrimination against temporary workers (beyond what could be justified by market conditions and worker characteristics) should be prohibited. Currently, it is mandatory for firms to convert temporary contractual workers into permanent employees if the contract lasts two years or longer, a legal obligation intended to protect temporary workers from job insecurity. However, such obligations have worked against temporary workers because firms have tended to write temporary labor contracts with durations of less than two years with no possibility of a renewal. Such unintended consequences have resulted in increased duality in the labor market, and discouraged temporary workers from developing long-term careers by investing in human capital.

- *Incentivize active job training and job search by the unemployed.* Labor market policies need to be upgraded to deliver more effective job training and policy support for job search activities. To this end, the unemployment insurance needs to be structured to provide larger and longer benefits to those who are more active in job training and job search. At the same time, a policy network needs to be established between central and local governments to share job information, to provide integrated services, and to minimize duplications in policy support for the unemployed.

### B. Financial Reforms

Adequate access to finance by entrepreneurs, including at an affordable cost, is another essential element for growth to be realized. Most obviously, financial reforms are crucial in improving the economy's allocative efficiency and hence productivity growth. In addition, financial reforms could help the economy reap the benefits of other structural reforms sooner than later. For instance, labor market reforms will increase potential GDP and income in the medium to long run, but may be contractionary in the short run if they temporarily raise unemployment. Efficient financial markets can bring forward future gains in income into higher current asset prices, which will in turn help mitigate the short-term contractionary impact.

Korea's financial sector, particularly the banking sector, has long been subject to government control or interfrerence in credit allocation for reasons unrelated to financial stability and soundness. Directed lending to selected industries and frms has continued for industrial policy purposes even after banks were fully privatized, often resulting in large non-performing loans and subsequant bailouts. Faced with limited competition in the domestic market, banks had little incentive to develop risk appraisal, lending practices, and investment project evaluation skills, while relying heavily on collateralized lending outside the context of directed lending and enjoying an implicit government guarantee in case of a solvency crisis.[3] As a result, the allocation of financial resources has in part been affected by the government's policy intention, rather than fully driven by banks' profit-making motives.

In this context, financial reforms should aim at financial deregulation to the extent possible within financial stability considerations. Specifically, the system of financial business regulations should be converted into a negative system, under which financial institutions can do business unless restricted or prohibited by regulations, from the current positive system. Prudential regulations and supervision should also be upgraded in order to adequately deal with the attendant risk of business deregulations. This, and taking a gradual approach, will ensure that deregulation will bring a net positive benefit. Indeed, international experiences strongly suggest that it will take time for both banks and the regulatory authorities to adjust their business models and policy frameworks to a deregulated environment and enhanced market competition.

[3] Heavy reliance on secured lending (either by collateral or credit guarantees) may be warranted for the time being for bank's risk management. However, anecdotal evidence suggests that collateralized lending or credit guarantee is preferred by loan officers because they are penalized in performance evaluation for ex post financial losses while being insufficiently rewarded for ex post higher returns.

In terms of more specific requirements, one of the most urgent needs in Korea is to improve access to long-term financing by small and medium enterprises (SMEs). In particular, while large firms already have diversified their funding sources, many SMEs—particularly those with short and unproven business track records such as start-ups—are facing difficulties in their access to finance for various reasons. From the perspective of banks, lending to SMEs is generally riskier than lending to larger firms (which might have sufficient collateral or proven business records) or collateralized lending to consumers (e.g., mortgage lending). To some degree this is a natural market outcome in the presence of frictions such as information asymmetry, debtor moral hazard, and issues with bankruptcy procedures. At the same time, some is related to creditor moral hazard and unsophisticated lending practices by banks, such as relying too much on collateralized lending. This has resulted in banks extending short-term loans and rationing credit to SMEs. In Korea, for example, short-term borrowing accounts for about 70 percent of total borrowing by SMEs, far exceeding the OECD average of 46 percent. Such high dependence on short-term financing and resulting financial vulnerability has, in turn, tended to discourage even profitable risk taking by entrepreneurs and constrained SMEs in undertaking R&D investment and marketing activities.

Furthermore, although public agencies provide credit guarantees to SMEs at affordable cost, they tend to roll over guarantees for incumbent SMEs in fear of possible financial losses from withdrawing guarantees even when guaranteed loans are expected to be non-performing soon. Consequently, start-up firms face unduly large difficulties in access to credit guarantee services and hence bank credit, and are often forced to seek financing from nonbanks at a significantly higher cost and risk. More broadly, a wide array of policy support for SMEs (including preferential tax treatments, subsidies, entry barriers for large firms in specific businesses, etc.) needs to be reformed based on a candid assessment on their effectiveness and distortions they have created.[4]

Notwithstanding the side effects of limited access to finance and its economic consequences, we believe that too drastic financial deregulations could even worsen access to finance by SMEs and venture businesses, rather than improving it, at least until banks develop more sophisticated, data-based lending and risk management practices and until venture capital markets are well developed in size and depth. For the time being, therefore, the government would need to play a role in promoting credit allocations toward SMEs and venture firms in particular, while improving the corporate governance structure and accounting system of SMEs for transparency. This does not necessarily mean that the government should intervene directly in the market. Rather, the government can provide incentives and fiscal resources to banks to encourage lending to SMEs and start-ups at affordable cost while sharing risks with banks within the limit set by prudential regulations. As banks develop their own statistical

[4] A prime example of distortions which policy support for SMEs has created is the so-called "Peter Pan Syndrome" whereby successful SMEs that could expand have a perverse incentive to choose not to, in order to continue to receive subsidies and preferential treatments targeted for SMEs only.

data base and refine the risk assessment framework, the government support can be reduced gradually.

Specific measures we propose are as follows:

- *Refocus the role of Korea Development Bank (KDB).* The KDB, which is a state-owned bank and a policy arm of the government, can play a leading role in developing venture capital markets given its strong capital base and ample experience in wholesale lending. The KDB can be guided to rebalance its lending portfolio by increasing its lending, or equity investments, in venture businesses while at the same time reducing its exposures to large firms which have access to diversified sources of funding. The balance sheet exposure of KDB to venture businesses could be increased from the current 7 percent to 30 percent. This requires a restructuring of the governance system of the KDB to ensure separate and independent decision making in venture business investment, given that directed lending for policy purposes and investment in venture businesses are very different lines of business.

- *Share or reduce the financial risk faced by banks.* Provide low cost matching funds to banks, earmarked for lending to SMEs (including the self-employed) and start-ups at maturity of three years or longer, and share with banks financial losses from non-performing loans.

- *Broaden the menu of eligible collaterals.* Develop a statistical framework to assess the collateral value of movable assets and property rights owned by SMEs. Public agency can be established to lead evaluation.

- *Lower the bar for equity financing for venture firms.* Lower the required minimum for listing of venture firms in the KOSDAQ market. Reduce the minimum market capitalization and sales volume from the current 30 billion won and 3 billion won to 25 billion won and 1.5 billion won, respectively.

## C. Other Reforms

We highlight two other reforms of significant potential for efficiency gains.

- *Deregulate business investment in real estate in the Seoul metropolitan area.* Korea has long restricted real estate acquisition by firms in the Seoul metropolitan area as part of its development strategy for more balanced growth across regions. In consequence, firms—especially large high-tech firms—were not able to locate their production facilities or business headquarters in their best interest. Such geography-based restrictions resulted in a shortage of effective land supply for businesses, raising the cost of doing business and hurting productivity. Concerns about growing regional imbalances should be addressed not by restrictions on firms' geographical location but by arranging a system in which development benefits can be shared among regions through fiscal transfers.

- *Further liberalize immigration and foreign direct investment*. Firms' ability to tap into foreign resources (both labor and capital) also needs to be deregulated. In particular, efficiency gains would be possible by upgrading both immigration-and FDI-related policies, and will be particularly important in relaxing the resource constraints Korea will face from its demographic headwinds.

## V. SOCIAL PROTECTION FOR INCLUSIVE GROWTH

Economic freedom instituted by structural reforms and deregulations would work to the benefit of workers (including the self-employed) only if it is affordable and used for innovation and investment in human capital. This section draws from Byeon (2017) to provide a detailed account of specific measures of social protection as well as related spending needs and funding sources. The proposed measures, in our view, can help to increase economic freedom of workers to find jobs and invest in human capital for career development, and can also be well administered under the existing public management system. No doubt they demand a significant and, in many cases, permanent increase in public spending. For long-run fiscal sustainability, therefore, we outline how funding can come from a combination of expenditure restructuring and tax increases.

### 1. Measures of Social Protection and Spending Needs

We highlight two categories of social protection measures: unemployment benefits and public support for low-income households in meeting their basic needs. The unemployment benefit needs to be increased both in level and duration in order for it to provide adequate protection against income loss from temporary unemployment. Social support for low-income households also needs to be increased to make sure that structural reforms, while boosting productivity growth, do not result in greater inequality.

### A. Unemployment Benefits

Unemployment benefits are currently less than what workers would make by working full time at the minimum wage, and coverage is capped at eight months. Furthermore, about 30 percent of wage earners and most of the self-employed are not even covered by any unemployment insurance. Given such limited support for the unemployed, labor market reforms discussed in the previous section are estimated to put more than half million households into poverty under the current system of unemployment insurance (Byeon, 2017).

#### *Proposed Measures*

As such, there is considerable room to increase the generosity of the unemployment benefit system, while being mindful of possible disincentive-to-work effects. Specific measures we propose are as follows:

- *Increase the replacement ratio (defined as the ratio of unemployment benefits to the average salary of all workers over three months prior to layoff) from 60 percent to 80 percent in two steps*. Immediately increasing the replacement ratio to 70 percent would be just sufficient to cover the minimum cost of living for a head of household with three dependents. Raising it further to 80 percent in the second step would help to cover some of the cost of job search and training by the unemployed.

- *Extend the maximum payment duration to 18 months*. This measure is expected to increase the average payment duration of unemployment to eight months, up from the three months. While payment duration can be further extended to, say, 24 months or longer over time as fiscal capacity permits, a cautious approach would be needed in order not to weaken the incentive to work.

- *Front load the disbursement of unemployment benefit*. To incentivize active job search by the unemployed, the disbursement of unemployment benefit could be front loaded by using contingent allowances. Specifically, the unemployed can receive one half of the unpaid benefit as an allowance if she gets employed before the end of the entitlement period. The share of such allowance is currently about 4½ percent of total disbursements, but can be increased to 8 percent by 2025.

- *Make coverage universal*. Univeral coverage will not only prevent uninsured workers from falling into poverty when unemployed, but might also encourage more people to seek self-employment and hence foster innovation. The level of assistance is set to make up for the difference between household income of the uninsured worker during unemployment and the minimum cost of living.

### *Spending Needs*

Labor market reforms discussed in the above, if fully implemented, are estimated to increase the unemployment rate from 3 percent to 7 percent in the short run before bringing it back to 3 percent in the medium term (Byeon, 2017).[5]

The estimated increase in the unemployment rate assumes that labor market reforms will have a similar effect on the unemployment rate as the 1997–98 financial crisis, and reflects the positive impact of reforms on the labor participation rate. The unemployment rate for youth is projected to rise to 12–13 percent temporarily before being stabilized at 6 to 7 percent when reforms begin to take effect on growth and job creation. Given these projections for the unemployment rate, total spending need for the proposed measures

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[5] The estimated medium-term effect of labor market reforms is broadly in line with the experiences of Germany and Spain where labor market reforms were undertaken. In Germany, for instance, the unemployment rate fell from 11 percent in the early 2000s to 5 percent by 2012. Similarly, the unemployment rate declined to 22 percent in 2015, down from 26 percent in 2013 in Spain

combined is estimated to be about 125 trillion won in total over the period of 2018–22 (Table 2).

## B. Stabilizing the Cost of Living of Low-income Households

Protection against income loss from temporary unemployment would not be enough to make economic freedom affordable to unskilled, low-income workers and households on a sustained basis. In Korea's context, stabilizing the cost of living of low-income households can provide more effective protection than direct income support, and can also be better administered by the government under the existing public management system. The basic idea is to help low-income households to meet their basic needs at affordable cost. We highlight three basic needs in this regard: housing, child care, and education. Before proposing specific measures, it would be useful to discuss Korea's challenges related to these basic needs.

Given that Korea is one of the most densely populated country and that land supply is fixed, rapid economic devalopment has pushed up real estate prices faster than labor income growth, generating large capital gains for those who were able to purchase real estates out of their savings or by using their access to finance. For low-income households with little savings or no access to fiannce, capital gains from rising real estate prices were out of their reach. Moreover, rising house prices and the ensuing increases in housing rents (in excess of labor income growth) have further reduced room for savings for low-income households. For those living in rental or leasing units, the ratio of rents to income has increased from 18.7 percent in 2006 to 20.3 percent by 2014 depsite that the sample period includes the global financial crisis. Although the raio of housing units to the number of households stood at 103.5 percent in 2014, the share of households living in rental or leasing units increased from 39 percent in 2006 to 42 percent in 2014.

Against this backdrop, increasing the supply of long-term public rental housing at affordable cost would help stabilize the cost of living for low-income households. At present, the share of households living in public rental units remains at less than 6 percent, which is well below those in many European countries.[6]

Rapid population aging and declining fertility rate have been a source of productivity slowdown and rising fiscal burden. The fertility rate remains at one of the lowest levels by international standards, despite the large amount of public spending (of about 80 trillion won in total during the last decade) devoted to increasing the fertility rate—the fertility rate increased only marginally from 1.12 in 2006 to 1.17 in 2016. In this respect, public support for child care services—which has been provided in the form of subsidy to service providers rather than as direct child allowances to households—seems to have failed to produce

[6] In 2015, the share of households living in public rental housing stands at 17 percent in France, 18 percent in England and Sweden, 23 percent in Austria, and 32 percent in the Netherlands.

satisfactory results perhaps due in part to administrative difficulties to oversight a large number of service providers and the resulting leakage in the delivery.

As to education, Korea stands out in international comparison when it comes to college education given that about 70 percent of high school graduates go to college. It is debatable whether Korea is over investing in college education from the economics point of view.[7] Setting aside this issue, Korea is facing other challenge related to college education. As college educaton has become a norm, college diploma no longer seems to be an advantage in finding jobs. Instead, no college diploma has become a clear disadvanatge in finding (high-paid) jobs and even a source of socail discrimination. In consequence, those from low-income households who cannot afford college education for financial reasons have been increasingly marginalized in the job market with less and less opportunity to climb up the social ladder. This has acted to weaken social cohesion and hurt inclusive growth.

***Proposed Measures***

We propose the following measures to help low-income households to meet the three basic needs on a sustained basis.

- *Increase the supply of long-term public rental housing*. At the aggregate level, this policy aims at increasing the share of households living in public rental units to 20 percent by 2022. Given the existing stock of public rental housing units (1.2 million units as of 2017), an additional supply of 2.9 million units would be needed. This can be achieved by using three approaches: (1) 1.7 million units through "build (new homes) and rent", (2) 0.35 million units through "buy (existing homes) and rent", and (3) 0.85 million units through "lease (existing homes) and rent".[8]

- *Introduce allowances for children.* Providing allowances of 200,000 won per month for a child aged 4 or less, and 100,000 won per month for a child aged 5 to 9, would bring a number of benefits. In France, for example, the fertility rate jumped from 1.65 in the early 1990s—the lowest among OECD countries at that time—to 2.0 by 2015 aided by various child allowances. This is supported by looking at the allowances provided in more than 90 countries around the world. Beyond this, it would provide greater economic freedom for women to re-enter the workforce.

- *Provide high school education free of cost for all, and subsidize college education.* Making high school education free of cost for all would help improve the stock of human capital at the national level at only a small extra cost (at present, high school education is not mandatory). Subsidizing college education can be implemented either by increasing

[7] By international standards, many would likely be of the view that Korea has indeed been over investing in college education. But Korea's seemingly excessive investment may be justified, at least in part, once the demographic challenges faced by Korea and their negative impact on growth are taken into consideration.

[8] Under the "buy and rent" and "lease and rent" approaches, the break-even public rents can be set at a below-market level if the government can borrow at a lower interest rate than private agents can.

targeted approaches, such as needs-based scholarships for low-income households, or through broader subsidization of colleges while reducing the tuition for all students. The former approach is better targeted and economically more sensible, but may be more difficult to implement administratively and politically given difficulties in setting income thresholds and conducting means tests. The latter would be costlier but easier to implement and administer.

Some of these proposed measures, such as child allowances and college education subsidies, could apply to all eligible households regardless of the income level. In this respect, they may be considered too generous. If viewed from the political economy perspective, however, they would be considered as a necessary second best solution given the need to make any paradigm shift be politically viable.

***Spending Needs***

Total spending needs arising from the proposed measures is about 168 trillion won in total over the period of 2018–22 (Table 2).

- Supplying an additional 2.9 million units of public rental housing would cost 331 trillion won—233 trillion won for “build and rent”, 33 trillion won for “buy and rent”, and 65 trillion won for “lease and rent”—over the period of 2018–22.[9] Out of this total, 221 trillion won can be covered by the exisitng public housing investment fund (Housing City Fund) and the public agency (Korea Land and Housing Corporation). This leaves the net fiscal cost of the central government to 110 trillion won over the period of 2018–22.[10]

- The net fiscal cost of providing childcare allowances is estimated to be about 39 trillion won over the period of 2018–22. This estimate reflects savings from abolishing the existing family care allowances (1.2 trillion won per year) and child care subsidies (8.8 trillion won per year).

- Providing high school education for free is expected to cost 4 trillion won while the expected net cost of subsidizing college education is 14–15 trillion won over the period of 2018–22. This incorporates possible savings from reduced budget support for national college scholarships and savings from reduced high school enrollment given the projected demographic trends.

[9] It should be noted that the fiscal cost of public rental housing is in fact a capital investment that also generates a stream of rental income for the government over the longer term.

[10] The proposed cost sharing between the central government and public investment agencies is calculated based on the medium-term budget plan as of 2015.

**Table 2. Increasing Social Protection: Spending Needs**

| Spending Needs | | 2018 | 2019 | 2020 | 2021 | 2022 | Total |
|---|---|---|---|---|---|---|---|
| Unemploment insurance | Unemployment benefits | 16.7 | 26.7 | 37.8 | 27.8 | 16.2 | 125.2 |
| Cost of Living Support | Public housing | 9.1 | 58.6 | 15.4 | 13.4 | 13.4 | 110.0 |
| | Education | 3.1 | 3.4 | 4.3 | 3.9 | 3.8 | 18.5 |
| | College education | 3.1 | 3.1 | 2.9 | 2.7 | 2.6 | 14.4 |
| | High school education | 0.1 | 0.3 | 1.4 | 1.2 | 1.2 | 4.1 |
| | Child allowances | 8.0 | 8.0 | 8.0 | 7.7 | 7.6 | 39.3 |
| | Subtotal | 20.2 | 70.0 | 27.7 | 25.0 | 24.8 | 167.8 |
| Total | | 36.9 | 96.7 | 65.5 | 52.8 | 41.0 | 293.0 |
| Memo: Unemployment rate under labor market reforms | | 4.0 | 5.5 | 7.0 | 5.5 | 3.7 | … |

Source: Byeon (2017)

## 2. Funding for Increased Social Protection

Total spending needs associated with the proposed social protection measures are estimated to be 293 trillion won over the period of 2018–22 (Table 2), or 4 percent of annual GDP. This is a significant increase in public spending. Moreover, about two thirds of total spending need, which excludes spending for public housing, are permanent in nature. Given the magnitude and permanent nature of spending need, funding should come primarily from permanent expenditure restructuring and tax increases. In this way, fiscal sustainability can be assured. Table 3 summarizes available funding from expenditure restructuring, tax increases, and other (one-off) measures such as sales of government shares of state-owned enterprises (SOEs).

### A. Expenditure Restructuring

The proposed framework of the paradigm shift envisages a simultaneous big push on both structural reforms for economic freedom and social protection. Consistent with this, public spending needs to be restructured to reduce, if not eliminate, spending that supports inefficient market interventions while increases spending for social protection. Practically, expenditure restructuring would focus on eliminating duplicated expenditures, cutting expenditures which have proven ineffective or unduly distortionary, and minimizing administrative costs. Along these guiding principles, we propose specific measures and estimates of the savings from each measure over the period of 2018–22.

- *Restructure the Employment Protection Fund*. Transfer of maternity benefits (currently covered as part of unemployment benefits) to the National Health Insurance Fund, and raise the contribution rate of unemployment insurance by 1 percentage point (to 2.82 percent). This would yield savings of 13 trillion won.

- *Restructure the social welfare budget*: Cut budget support to local governments and civil organizations that have proven inefficient and wasteful, strictly enforce collection of contributions to national health insurance and national pension funds to remove arrears, and raise the retirement age. These measures will bring savings of 16–17 trillion won.

- *Cut and rationalize public R&D investment*: Streamline and scale down the national R&D budget by focusing on basic research only, and abolish budget support for R&D by firms. Total savings of 48 trillion won are likely.

- *Rationalize public investment projects*. Improving the efficiency of job creation projects would yield 21.7 trillion won for 5 years given a large part of the budget for these projects overlaps with the expenditure of the employment insurance fund. By consolidating this budget to the employment insurance fund and unemployment benefits, a total of 15.5 trillion won can be saved. Furthermore, the current job-search incentive program, with a budget of 2.8 trillion won, often provides an unnecessary support for the middle-income households. By reducing the budget by 30–40 percent, an additional 6.2 trillion won can be saved.

- *Reduce duplication in age/fertility related spending*. Streamline and merge budgets earmarked for addressing population aging and fertility declines (which amounted to 35 trillion won in 2016). This measure will bring in budget savings of 7 trillion won in total over the period of 2018–22.

- *Rationalize lending to SMEs and start-up firms*. Reduce the budget earmarked for lending to SMEs and start-up firms by 20 percent. A study by the National Assembly Budget Office shows that more than 15 percent of bank credit extended to SMEs and start-up firms was wasted. This measure will save 4–5 trillion won.

## B. Tax Measures

- *Increase the tax rates where economically least distortionary and socially equitable.* For instance, tax rates can be increased where deemed low by international standards and/or by domestic social equity considerations, and also where well matched with policy priorities, while being mindful of possible negative impact on efficiency and international competitiveness. To ensure that increased spending needs are fully met with no recourse to debt financing, the proposed framework envisages an increase in the tax revenue of 107 trillion won over the period of 2018–22 by raising tax rates.[11]

[11] Byeon (2017) proposed an increase in the value-added tax (VAT) rate from the current 10 percent to 15 percent in two steps during the period of 2018-22. The VAT rate has remained unchanged at 10 percent since its introduction 1977, which is about half of the OECD average of 19.2 percent. Consequently, revenue from the VAT accounts for less than 4 percent of total tax revenue, compared to the OECD average of 6.3 percent. Given its broad tax base, an increase in the VAT is well suited towards financing an increase in social protection if low-income households are adequately compensated by transfers and subsidies.

- *Increase the transparency and progressivity of personal income taxes*. Raise tax rates for the highest income brackets, simplify the tax code, and shift to total income tax (rather than taxing differently individual incomes such as wage income, interest and rental incomes, and dividends, etc.). These measures are expected to increase tax revenue by 14–15 trillion won.

- *Introduce the consumption tax on coal used for power generation*. Increase the consumption tax rate on coal used for power generation from 33 won/kg to 47 won/kg. This will bring in an additional 6 trillion won as well as help save on health care costs by improving air quality.

- *Reduce and streamline tax exemptions*: Avoid excessive use of changes in tax exemptions as part of cyclical fiscal policy. This measure can bring in savings on tax expenditures of 17–18 trillion won.

## C. Others

- *Sales of government shares of SOEs*: Sell 49 percent of government shares of six fully-owned, unlisted SOEs (including Korea National Oil Corporation). The book value of those unlisted SOEs is estimated to be 85 trillion won, suggesting proceeds of sales of more than 27 trillion won.[12]

**Table 3. Increasing Social Protection: Funding Sources**

| Funding Sources | | 2018 | 2019 | 2020 | 2021 | 2022 | Total |
|---|---|---|---|---|---|---|---|
| Expenditure Restructuring | Job protection budget | 4.0 | 4.6 | 5.2 | 6.0 | 6.8 | 26.6 |
| | Job creation budget | 3.5 | 3.9 | 4.3 | 4.7 | 5.3 | 21.7 |
| | Social welfare budget | 2.8 | 3.1 | 3.3 | 3.5 | 3.8 | 16.5 |
| | R&D budget | 9.6 | 9.6 | 9.6 | 9.6 | 9.6 | 48.0 |
| | Other budget | 3.7 | 3.8 | 3.8 | 3.9 | 4.1 | 14.3 |
| | Subtotal | 23.6 | 25.0 | 26.2 | 27.7 | 29.6 | 127.1 |
| Taxes and Tax Expenditures | Increases in tax rates | 15.2 | 8.8 | 24.0 | 25.0 | 34.1 | 107.0 |
| | Income tax | 1.0 | 3.0 | 3.5 | 3.5 | 3.5 | 14.5 |
| | Coal consumption tax | 1.2 | 1.2 | 1.2 | 1.1 | 1.1 | 5.8 |
| | Tax exemptions | … | 4.0 | 4.5 | 4.5 | 4.5 | 17.5 |
| | Subtotal | 17.4 | 17.0 | 33.2 | 34.1 | 43.2 | 144.8 |
| Others | Divestment in SOEs | … | 27.0 | … | … | … | 27.0 |
| Total | | 41.0 | 69.0 | 59.4 | 61.8 | 72.8 | 298.9 |

Source: Byeon (2017)

[12] It is assumed that the market (or sale) value of the government's share is 65 percent of the book value, which is close to the average of the ratio of the market value to the book value in the past episodes of divestment in SOEs.

## VI. IMPLICATIONS FOR LONG-RUN FISCAL SUSTAINABILITY

Our proposed framework of the paradigm shift envisages sweeping structural reforms to enhance economic freedom and increased social protection. Increasing social protection to the proposed level requires a significant and permanent increase in public spending. This occurs alongside existing challenges to Korea's fiscal sustainability, including the projected worsening of demographic trends and declining growth. As such, one option is for permanent increase in spending to be fully met by a mix of expenditure restructuring and tax increases as proposed in our framework. In doing so, public debt dynamics and long-run fiscal sustainability are left little changed compared to the status quo scenario.[13]

But an optimal financing plan may involve some debt financing if proposed tax increases create too many distortions or if the reforms generate a permanently higher growth rate. In this respect, a relevant question would be whether and how much there will be room for debt financing from the debt sustainability point of view. A simple exercise helps to shed light on this question.

Consider the following debt dynamics equation which is given by

$$\Delta d_{t+1} = \left(\frac{r_t - g_{t+1}}{1 + g_{t+1}}\right) d_t - s_{t+1} \tag{1}$$

where *d* is the debt-to-GDP ratio, *r* the real effective interest rate (calculated by dividing the interest payments by the stock of debt in the previous period), *g* the rate of real GDP growth, and *s* the primary balance as a share of GDP. In the deterministic case where *r*, *g*, and *s* are all constant, the long-run equilibrium debt ratio or the debt limit, denoted by $d^*$, obtains as follow:

$$d^* = \left(\frac{1+g}{r-g}\right) s \tag{2}$$

It readily follows that growth-enhancing structural reforms raise the debt limit for a given real interest rate and a given path of primary balances. If the primary balance remains unchanged in our proposed framework (as the net increase in spending is fully met by tax increases), structural reforms will allow a higher debt limit and hence more fiscal space (which is defined as the difference between the debt limit and the current debt ratio).

The scope for debt financing without undermining debt sustainability can be measured by the size of the change in the primary balance ratio ($-\Delta s$) which keeps $d^*$ constant in response to

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[13] Under the proposed framework, the debt ratio could fall below the level implied by the status quo scenario for two reasons. First, the primary balance could be higher than in the status quo scenario. For example, the tax-financed public housing support is in fact a capital investment which generates rental income for the government. Second, structural reforms would likely boost productivity growth. For a given path of primary balances, higher growth would lower the debt ratio.

a permanent one-percentage point increase in the real GDP growth rate. By totally differentiating (2), it is straightforward to show that setting $\Delta d^* = 0$ yields,

(3) $$-\Delta s = \left(\frac{d^*}{(1+g)^2}\right)\left[(1+r) - (1+g)\frac{\partial r}{\partial g}\right]\Delta g$$

This suggests that the scope of debt financing (as captured by $-\Delta s$) is related to the existing debt limit ($d^*$), the level of the real interest rate, and current growth rates of real GDP, and the amount of additional growth various reforms would deliver. At the same time, it is negatively affected by the sensitivity of the real interest rate to the real GDP growth rate.

For a small open economy, the interest rate would likely be insensitive to the growth rate (i.e., $\partial r/\partial g \approx 0$). In this case, the scope for debt financing can be expressed as

(4) $$-\Delta s \approx A \cdot \Delta g, \quad A = [(1+r)/(1+g)^2]d^*$$

Assuming that $g = 0.025$, $r = 0.03$, and $d^* = 2.0$ under the status quo scenario, a permanent ¼ percentage point increase in the growth rate of real GDP from structural reforms would allow the primary balance to be one half percentage points lower while keeping the debt limit unchanged.[14] Stated another way, this result implies that the required increase in the tax revenue in our financing plan could be scaled down by about 7 trillion won per year without affecting the fiscal space that would be available under the status quo scenario.

## VII. Conclusion

Korea is faced with several structural challenges that are also becoming more acute over time. Economic growth has been declining since the Asian crisis, while demographic headwinds are not just posing a threat to the soundness of public finances but also to the dynamism of the entire economy. It has become clearer that the unbalanced growth model that worked well for Korea in its heydays of rapid economic development is no longer viable for both economic and political reasons. As the expected trickle-down effect is diminishing, sources of growth have been increasingly more concentrated with limited positive spillovers across sectors. On the political front, the unbalanced growth model has become increasingly unpalatable and even discredited among a growing share of society as economic growth has become less and less equitable. However, policy responses have been modest, and hostage to political battles over the past two decades, leaving most structural challenges unaddressed for too long. "Kicking the can down the road" will only increase the gravity of the challenges that will ultimately need to be addressed.

Korea has an opportunity to make the paradigm shift needed to achieve sustainable and inclusive growth and to meet the structural challenges. As a politically viable framework for

[14] Ghosh et al. (2013) estimate fiscal space for 23 advanced economies based on a fiscal fatigue model. Their estimates show that Korea's debt limit is 230 percent of GDP given its track record.

Korea's paradigm shift, we propose a *simultaneous* big push for structural reforms to enhance economic freedom and social protection. In our view, simultaneous actions on both fronts is the only viable option to achieve both economic and political support through the democratic decision making process. That is, increasing social protection with no attendant structural reforms will almost surely put fiscal sustainability and dynamism of the economy at serious risk, and make any future structural reforms more difficult and risky. At the same time, pushing for structural reforms to enhance economic freedom without increasing social protection will have effectively no chance to be accepted by the society.

The proposed increase in social protection over the next five years is clearly ambitious, and may require extraordinary policy efforts to minimize waste and distortions in its delivery. The proposed financing plan may not produce as much revenue as initially projected. Structural reforms could also take time to boost productivity growth. As such, the government should exercise flexibility in adjusting the pace and sequencing of spending and tax increases depending on macroeconomic conditions and progress in structural reforms. For instance, large increases in tax-financed spending may be inflationary in the short run before structural reforms take effect and improve potential growth. Structural reforms and tax increases may take time to design as well as to guide through the political process and implement. If needed, therefore, spending increases can be implemented in multiple phases starting from the expansion of unemployment benefits. Likewise, the proposed tax increases could be instituted in several steps rather than at once.

The current global and domestic economic conditions appear particularly favorable to the proposal. As shown, growth dividends from structural reforms are likely be larger if started from a low growth rate. In addition, inflationary pressure is less likely to develop from large increase in fiscal spending given the low inflation environment. Furthermore, low global interest rates would enable the government to borrow at low cost—and lock in the current low interest rates in case of long-term borrowing—if debt financing is needed or desired. Finally, public finances are still very sound, with low debt. In this respect, Korea should not miss this opportunity to revitalize its economy and strengthen social stability.

## Appendix. Literature Survey on Structural Reforms, Growth, and Inequality

This appendix provides a brief survey of analytical and empirical findings from the literature on structural reforms, growth, and inequality, drawing from IMF (2016) and Ostry et al. (2014) and the references therein.

### A. Structural Reforms and Growth

Data shows that productivity growth has begun to slow down at the global level since the early 2000s with marked decline in the aftermath of the global financial crisis (Adler et al., 2017). This finding suggests that deeper structural factors—beyond - the legacy of the global financial crisis—have been playing a role, and that addressing structural factors behind productivity slowdown is necessary to embark on a sustainable growth path. As global economic and financial conditions became stabilized, policy attention has shifted from macroeconomic stimulus for recovery to structural reforms for sustainable growth, particularly those designed to strengthen the functioning of *product and labor markets* (IMF, 2015; OECD, 2015).

Product market reforms may include but is not limited to deregulating retail trade, professional services, and certain segments of network industries (air, rail, and road transportation; electricity and gas distribution; telecommunications and postal services), primarily by reducing barriers to entry. Likewise, labor market reforms could involve various aspects such as increasing the ability of and incentives for the unemployed to find jobs, lowering the costs of and simplifying the procedures for hiring and dismissing regular/permanent workers, harmonizing employment protection legislation for both regular and temporary workers, or cutting the labor tax wedge—i.e., the difference between the labor cost to the employer and the worker's net take-home pay.

Despite highly diverse nature of the structural reforms as discussed above, most of them essentially aim at reducing policy distortions, thereby improving the allocative efficiency of an economy—facilitating resources to flow from less productive to more productive firms or sectors. For example, product market reforms could, in theory, boost growth by lowering the prices that firms charge consumers, by improving the use and allocation of labor and capital across firms, and by enhancing firms' incentives to invest, absorb cutting-edge technologies, and innovate (e.g., Aghion et al., 1997; Alesina et al., 2005). Advanced economies have made major progress in this respect over the past two decades—for instance, in deregulating network industries. Nonetheless, there remains scope for further progress in many European countries as well as in Japan and Korea (Koske et al., 2015). Reforms of employment protection systems may also boost productivity by enhancing resource (re)allocation across firms and industries (Bassanini et al., 2009; McMillan and Rodrik, 2011; Ahn, 2017).

Potential gains in productivity from structural reforms would be larger in countries where resources are misallocated across firms and sectors. Hsieh and Klenow (2009) find that resource misallocation in China and India is large enough to cost almost half the aggregate productivity level. Kim, Oh, and Shin (2017) also show that resource misallocation in Korea has been rising since the 1990s. These findings suggest large potential gains from structural reforms in these countries.

Long-run efficiency gains from labor and product market reforms as well as the channels through which they operate (e.g., increased productivity, lower unemployment, higher labor force participation, etc.) are well documented for advanced economies. But much less is known about the short- to medium-term effects of such reforms, which may interact with macroeconomic policies. IMF (2016) finds that product and labor market reforms raise output and employment in the medium term, and that their short-term payoff could be maximized if complementary macroeconomic policies are in place—particularly if there is slack in the economy. More specifically, product market reforms seem to deliver gains even in the short term (albeit smaller compared to gains accrued in the medium to long run) but the short-term impact of labor market reforms varies depending on specific content of reforms and overall economic conditions. For instance, a reduction in in labor tax wedges and an increase in public spending on active labor market policies tend to have larger effects during periods of economic slack, partly because they usually entail some fiscal stimulus. In contrast, reforms of employment protection measures and unemployment insurance benefits tend to have positive effects in good times, but not in periods of economic slack. These results strongly suggest that reforms should be carefully prioritized and sequenced.

## B. Inequality, Redistribution, and Growth

The relationship between inequality and growth is less well known even in theory. To a certain extent, inequality may affect growth positively by incentivizing innovation and entrepreneurship (Lazear and Rosen, 1981), by raising saving and investment if rich people save a higher fraction of their income (Kaldor, 1957), and by allowing at least a few individuals to accumulate the minimum needed to start businesses and get a good education (Barro, 2000). At the same time, however, (too much) inequality may be harmful to growth because it could deprive the poor of the ability to stay healthy and accumulate human capital (Perotti, 1996; Galor and Moav, 2004; Aghion et al., 1999); generate political and economic instability thereby reducing investment (Alesina and Perotti, 1996); or impede the social consensus required to adjust to shocks to a sustainable growth path (Rodrik, 1999). Moreover, the relationship between inequality and growth may in fact be nonlinear, as in the theoretical model of Benhabib (2003), where an increase in inequality from low levels could provide growth-enhancing incentives while too much of it beyond a certain threshold might encourage rent-seeking and thus lead to lower growth.

Available evidence generally supports the view that inequality impedes growth, at least over the medium term. Empirical studies have investigated the relationship between inequality and growth from different angles, examining growth over long periods of time (Persson and Tabellini, 1996; Perotti, 1996; Alesina and Rodrik, 1994), the level of income across countries (Easterly, 2007), or the duration of growth spells (Berg et al., 2012). They have concluded that inequality is associated with slower and less durable growth.

An early literature has examined the relationship between market inequality and redistribution. Meltzer and Richard (1981) argue that higher inequality will create pressures for redistribution because political power is more evenly distributed than economic power in democracies and because majority of voters will have the power and incentive to vote for redistribution. As pointed out by Benabou (2000), however, this need not be the case if the rich have more political influence than the poor. Evidence on the relationship between inequality and redistributive transfers is not clear-cut, partly because of ambiguity involved data on redistributive spending (Perotti, 1996; and Bassett et al., 1999). Specifically, not all spending categorized as redistributive spending (e.g., education or social insurance spending), may not be redistributive in practice—e.g., spending on post-secondary education in poor countries or on social protection for formal sector workers in many developing countries. By using more direct measures of redistribution, Milanovic (2000) finds more supportive evidence for the Meltzer-Richard hypothesis—i.e., more unequal societies do engage in redistribution more actively.

Another strand of research looks at the relationship between redistribution and growth. Focusing on the direct effect of redistribution policies, the early literature assumes that redistribution hurts growth (Okun, 1975) since higher taxes and subsidies tend to weaken incentives to work and invest. Efficiency losses are likely to be increasing in the tax or subsidy rate given the convexity of deadweight costs (Barro, 1990; Jaimovich and Rebelo, 2012). However, redistribution is not always detrimental to growth if it involves reducing tax expenditures or loopholes that benefit the rich as part of broader tax reforms (such as higher inheritance taxes offset by lower taxes on labor income). Redistribution can also occur when progressive taxes finance public investment, when social insurance spending enhances the welfare of the poor and risk taking (Benabou, 2000), or when higher health and education spending benefits the poor, helping to reduce labor and capital market imperfections (Saint-Paul and Verdier, 1993, 1997). In such cases, redistributive policies could affect both equality and growth positively.

Empirical evidence on the relationship between redistribution and growth is mixed. Evidence based on presumptive indicators of redistribution (e.g., taxes, government spending) seems to suggest that redistribution is detrimental to growth. Tanzi and Zee (1997) find that the relationship between growth and the level of total or income tax is negative but that this relationship is not robust and is sensitive to model specification. As to spending, Lindert (2004) finds that some redistributive spending—such as health and education spending or tax-financed spending on infrastructure investment—have no apparent adverse impact on growth.

To better understand the relationship between inequality and growth, however, it would be important to distinguish market inequality (before taxes and transfers) from net inequality (after taxes and transfers). By using a large panel data of taxes and transfers and measures of market and net inequalities, Ostry et al. (2014) report several important findings about the relationship between inequality and growth. First, more unequal societies tend to redistribute more. Thus, distinction between market and net inequalities is important. Second, lower net inequality is robustly correlated with faster and more durable growth, for a given level of redistribution. Third, redistribution appears generally benign in terms of its impact on growth; only in extreme cases is there some evidence that it may have direct negative effects on growth. Thus, the combined direct and indirect effects of redistribution—including the growth effects of the resulting lower inequality—are on average pro-growth.

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