

Structural reforms to make the most of demographic change

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INTRODUCTION

The world is going through rapid demographic change. In most G20 countries, employment-to-population ratios are set to decline through to 2060, putting downward pressure on progress in living standards. In this context, labor market reforms can potentially boost employment rates and thus help offset part of, or all of, the drag on living standards due to adverse demographics. At the same time, where populations are still young, favorable demographics can be a harbinger of greater prosperity in the future, especially if supported by policies that encourage the youth to stay in education and employment, and acquire the skills they need to thrive in rapidly changing economies and societies. The diversity of experiences among G20 countries calls for different policy actions in different countries.

DEMOGRAPHIC CHANGE IS PROJECTED TO WEIGH ON LIVING STANDARDS IN MOST COUNTRIES

The OECD Economics Department regularly generates long-run GDP projections for individual G20 economies using a model based on a conventional production function.¹ Accordingly, projected changes in living standards (real GDP per capita)

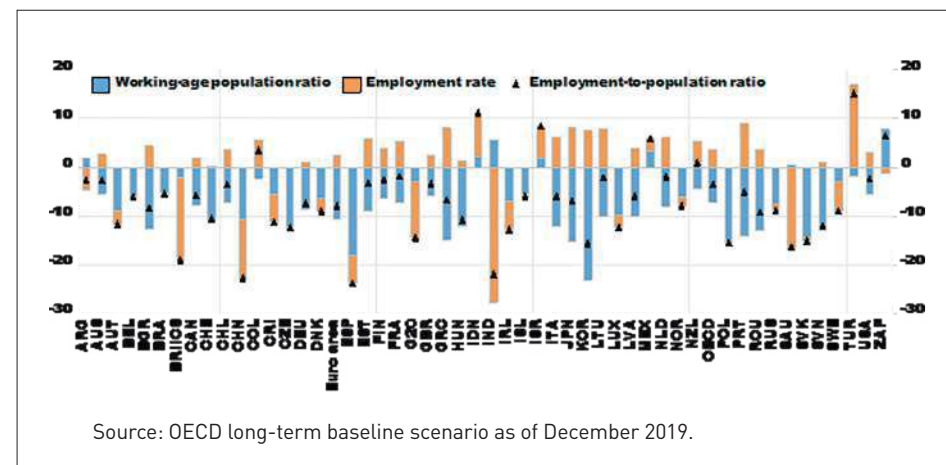
can be decomposed into two components: the employment-to-population ratio and labor productivity. The first of these components can be further decomposed into a working-age population ratio (ratio of population aged 15 to 74 to total population) and an aggregate employment rate (ratio of employment to the working-age population). A declining employment-to-population ratio does not mean that living standards will fall outright, because it can be compensated by labor productivity growth. However, for a given rate of labor productivity growth, a falling employment-to-population ratio hampers improvements in living standards.

The working age population ratio is a summary indicator of the age structure of the population. It tends to fall with population aging, indicating that each person of working-age must “support” an increasing number of young and old. According to the

latest population projections from the European Commission (for European countries) and the United Nations Population Division (for other countries), this support ratio is projected to decline in most countries over the coming decades. This effect alone is projected to lower real GDP per capita by about 3% across G20 countries through to 2060, all else equal (Figure 1). Support ratios are projected to increase over this period only in Argentina, India, Indonesia, Israel, Mexico and South Africa, due to higher fertility rates and lower life expectancies. At the other extreme, the largest declines in support ratios are projected in Korea, Spain and Japan, subtracting between 15% and 25% to real GDP per capita through 2060.

Aggregate employment rate projections are obtained from a cohort approach, incorporating generational trends and societal changes, such as rising female

Figure 1: Contributions to projected change in real GDP per capita between 2020 and 2060



Source: OECD long-term baseline scenario as of December 2019.

employment rates and rising educational attainment. The approach also integrates already-legislated future changes in statutory retirement ages. Projected changes in employment rates arise from differences in the employment propensities of different cohorts combined with shifts in the demographic structure of the population. The larger the differences between entry/exit rates into/from employment of different age cohorts, and the larger the size differences between cohorts, the more the aggregate employment rate changes over time in the baseline scenario as various cohorts progress through their active life cycles.

Population aging tends to depress the aggregate employment rate, because employment rates generally decline past the prime employment ages of 25 to 54. However, population aging is not the only influence on employment rates. In many countries, especially the more advanced ones, the negative aging effect is offset, at least in part, by other cohort dynamics, mainly rising female employment rates. Indeed, in the OECD area the projected change in the employment rate adds 4% to GDP per capita by 2060 (Figure 1). In the G20 area, however, a falling aggregate employment rate subtracts 11.5% from living standards by 2060, reflecting declining employment rates in India and China. Although cohort models for these countries are less reliable given data gaps, the limited information available suggests that female employment rates, in particular, have been declining.

Putting together the working age population ratio and employment rate effects, projected changes to employment-to-population ratios are set to depress living

standards by 14.5% among G20 countries by 2060. This calls for policy action to lift employment rates and raise labor productivity, depending on initial country conditions and gaps in policy settings relative to good performers.

»Where populations are young, favorable demographics can be a harbinger of greater prosperity.«

LABOR MARKET REFORMS CAN RAISE EMPLOYMENT RATES

Labor market reform appears particularly desirable in the context of demographic change to encourage higher employment and longer working lives. OECD work on the impact of labor market reforms on the economy is extensive, but the specific policy effects used in the long-term model are from the recent work of Gal and Theising (2015[2]) and Égert and Gal (2017[3]).

A simulation exercise illustrates the potential effects of selected labor market reforms. Consider, for example, a case where OECD countries implement a per-

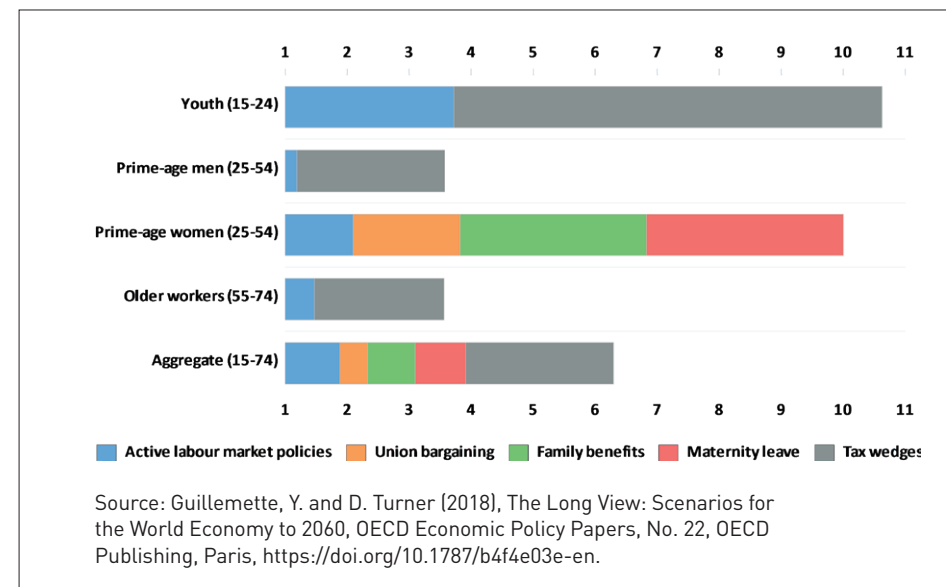
manent policy reform package between 2020 and 2030 that, for a number of policy indicators, would close half of the current gaps relative to simple (unweighted) averages of these indicators for the top five performing countries. In this exercise, the magnitudes of the policy changes depend, for each country and indicator, on the gap relative to best practices, defined as the policy settings in place in the best performing countries according to the latest available data. The exercise assumes that only half of the gaps close over the reform period in recognition of the difficulty of implementing these structural reforms.

More specifically, the reform package considered in the simulation exercise is as follows. The median country raises spending on active labor market policies

by 24 percentage points of GDP per capita per unemployed worker, lowers union bargaining excess coverage (defined as the difference between the coverage of collective contracts and union density) by 9 percentage points of the workforce, raises public spending on family benefits in kind by 0.6 percentage points of GDP, lengthens maternity leave by 12 weeks, and lowers tax wedges for single earners and couples by about 10 percentage points of labor costs.

The actual parameters of the reform package differ for each country depending on distance to best practices. Implementation raises employment rates for all age groups, but especially for the youth and prime-age women. For the OECD countries, by 2040 the aggregate employment

Figure 2: Impact of labor market reforms on OECD employment rates



rate is about 6.5 percentage points higher than in the baseline scenario, an outcome that is driven in large part by the boost to female employment coming from improvements to family benefits and maternity leave (Figure 2). In terms of policies, tax wedge reductions have the largest impact on the aggregate employment rate, because they affect employment rates for the youth, prime-age men and older workers. Lowering tax wedges and increasing family benefits in kind would promote not only employment among the lower-income segments of the population but also the integration of women in the labor market [OECD, 2017[4]].

In turn, rising employment rates would boost trend real GDP per capita growth by two-thirds percentage points in the OECD area at the peak toward the end of the reform implementation period (Figure 3, Panel A). The rapidity with which em-

ployment reacts actually drags down the amount of capital available per worker, hence the slight negative growth contribution of capital intensity. This would spur investment to rise and eventually capital intensity would also contribute positively to growth. OECD living standards would be some 4% higher than in the baseline scenario when the reforms are fully implemented in 2030 and 10% higher by 2060 (Figure 3, Panel B).

The cumulative improvement in living standards relative to the baseline scenario is as much as 12% to 15% in countries that are currently furthest away from best practices on the set of labor market policies considered here, including Italy, Belgium, Spain, France, Greece and Slovenia (Figure 4). Except for Spain, these policy-induced gains would be enough to fully compensate the negative contribution on GDP per capita growth stemming from

projected declines in employment-to-population ratios.

INFLECTING THE TREND DECLINE IN LABOR PRODUCTIVITY GROWTH

When it comes to emerging-market economies and developing countries, distances to best practices are especially large in the areas of governance, education and trade openness. Reforms in these areas could greatly accelerate the catch-up in living standards by boosting labor productivity growth. The goal of improving governance should be interpreted as targeting a wide range of objectives, from reducing corruption, improving law enforcement and the judicial process, increasing the effectiveness of public services and the accountability of those in power, to enhancing access and voice of the citizenry in public affairs. Improving education means making gains in both quantity (educational at-

tainment) and the quality of instruction, whereas promoting trade openness means lowering both tariff and non-tariff barriers to the flow of goods and services across borders.

To illustrate the effects of these reforms, a reform simulation exercise akin to the one presented above can be considered for Brazil, Russia, India, Indonesia, China and South Africa, the so-called BRIICS countries. The simulation exercise shows that improving governance, educational attainment and trade openness to median OECD levels over the next 40 years could boost living standards by 30% to 50% relative to a baseline scenario of no policy change [Guillemette, 2018[1]]. Governance appears a particularly potent source of potential economic gains in Russia, while Brazil, China and India also have much to gain by boosting educational attainment. The influence of greater trade

Figure 3: Impact of labor market reforms on OECD trend real GDP per capita

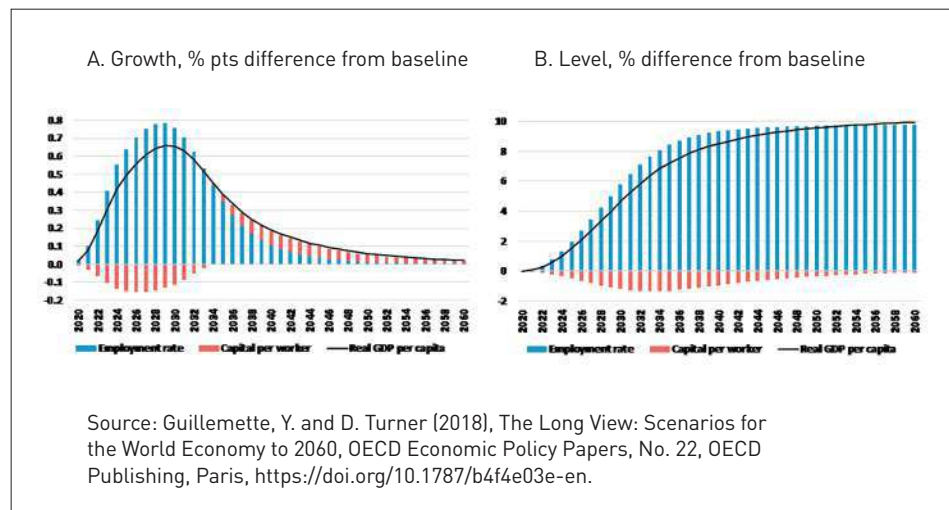
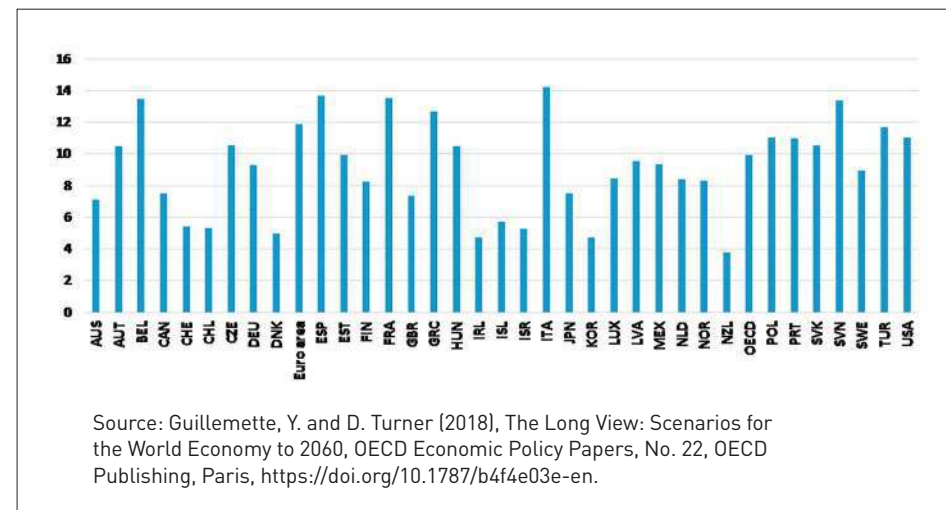


Figure 4: Impact of labor market reforms on real GDP per capita



openness is comparatively small, but largest in Brazil given relatively high import tariffs.

For all countries, raising labor productivity growth by moving to best practices in various policy areas appears especially desirable in the current context where productivity growth has been trending down and some research suggests that there could be a negative link between demographics and productivity growth (Feyrer, 2007[5]; Jones, 2020[6]). If productivity growth depends on the generation of new ideas and inventions, and if the rate at which this occurs is proportional to the size of the population, then it is worrisome for productivity that global population growth is slowing, and that the populati-

on is projected to fall by 2060 in six of the G20 countries, including Japan and China. Even where the population will continue to grow, workers are getting older. Given findings that suggest a negative association between productivity growth and the average age of the workforce, investing in youth through more and better education and boosting productivity with institutional and policy reforms seems all the more appealing.

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¹ See Box 1 in Guillemette and Turner (2018[7]) for an overview of the model and for references to more detailed explanations.

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How does population aging affect the effectiveness of monetary and fiscal policy?

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The Asian Development Bank Institute is an Asian think tank focused on identifying effective development strategies for Asia and the Pacific, and on providing support to ADB member countries in managing development challenges.

INTRODUCTION

How does population aging affect the effects of macroeconomics policies? Due to declining fertility and rising life expectancy, many countries are facing rapid aging of their populations. According to the population projection by the United Nations, the old-age dependency ratio (the proportion of people aged 65 or older in a working-age population) will double by 2050 (Figure 1). These demographic changes cause qualitative and quantitative changes in the demand and supply of the entire economy. In response to population aging, research analyzing the impact of population aging on the macroeconomy is growing. However, little attention has been paid to the impact of population aging on the effectiveness of macroeconomics policies.

The purpose of this article is to study how population aging would affect the macroeconomic effects of monetary and fiscal policies. It is based on a longer paper (Yoshino and Miyamoto, 2019) that exam-