

## HIGHLIGHTS

### Global Productivity: Trends, Drivers, and Policies

#### Key Points

- *The COVID-19 pandemic compounds the broad-based slowdown in global labor productivity growth that has been underway over the past decade. Labor productivity in the average emerging market and developing economy (EMDE) was less than one-fifth of the advanced-economy average in 2013-18.*
- *In EMDEs, the slowdown has reflected weaker investment and efficiency gains; dwindling sectoral reallocation; slowing improvements in key drivers of productivity; and adverse shocks such as natural disasters, epidemics, wars, and financial crises.*
- *COVID-19 may slow productivity growth further through multiple channels, including lower investment, erosion of human capital because of unemployment and loss of schooling, and a retreat from global trade and supply chains.*
- *To rekindle productivity growth, a comprehensive approach is necessary. This includes policies to facilitate investment in physical and human capital; encourage reallocation of resources toward more productive sectors and enterprises; foster firm capabilities to reinvigorate technology adoption and innovation; and promote an inclusive, sustainable, and growth-friendly macroeconomic and institutional environment.*

**Slowing productivity growth: fading convergence.** The COVID-19 pandemic struck the global economy after a decade characterized by a broad-based decline in productivity growth. Global labor productivity growth slowed from a peak of 2.7 percent in 2007, just before the global financial crisis, to a post-crisis trough of 1.5 percent in 2016, and it remained below 2 percent a year in 2017-18 (Figure 1). The post-crisis slowdown was widespread, affecting around 70 percent of advanced economies and EMDEs, home to over 80 percent of the global extreme poor. The productivity growth deceleration in EMDEs was the steepest, longest, and most synchronized since 1970, reflecting investment weakness and smaller efficiency gains, in approximately equal measures. Up to half of the decline in labor productivity growth in advanced economies and EMDEs over 2013-2018 reflected lasting trends beyond cyclical factors. As a result, the pace of convergence to advanced-economy productivity levels slowed in most EMDE regions.

**Many sources of the slowdown.** Since the global financial crisis, improvements in many key correlates of productivity growth have slowed or gone into reverse. Working-age population growth has decelerated, educational attainment has stagnated, and the pace of expansion into more diverse and complex forms of production has lost momentum as the growth of global value chains stalled. Labor reallocation toward higher-productivity sectors has historically accounted for about two-fifths of overall productivity growth in EMDEs. The pace of sectoral reallocation has weakened as the gap between sectors has narrowed. The global economy has also been buffeted by a series of shocks, of which COVID-19 is the latest. Natural disasters, wars, and major economic disruptions such as financial crises and deep recessions have tended to be accompanied by a large and protracted decline in investment and labor productivity.

**Adverse implications of COVID-19 for productivity.** The COVID-19 pandemic has plunged the global economy into its deepest recession since the Second World War. Uncertainty about the depth and duration of the pandemic has weakened domestic and foreign direct investment, and trade. Steep income losses and disruptions to education may cause an erosion of human capital and shifts in the labor markets. Mobility restrictions may slow the reallocation of workers away from low-productivity firms to higher-productivity ones. Governments and private sectors entered the pandemic with elevated debt levels. COVID-19-induced recessions may further strain corporate and public sector balance sheets leading to weaker investment and deeper employment losses.

**Potential productivity gains due to the pandemic.** Yet, the pandemic may also create productivity-enhancing opportunities for those countries that employ complementary policies to seize them. COVID-19 could encourage the adoption of new technologies and accelerate the automation of production. It could lead to a restructuring of supply chains, and improve education and financial development in countries with reliable and wide-spread internet access. However, these productivity gains may be unevenly distributed, causing employment losses in some sectors.

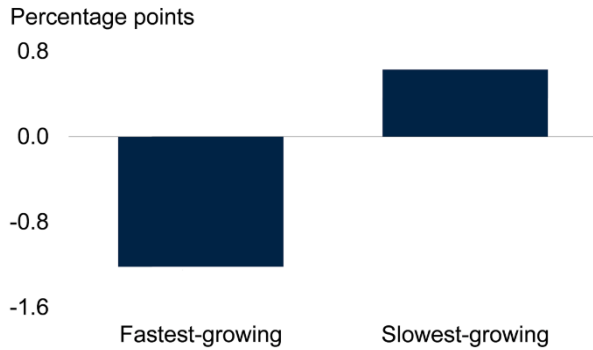
**Profound implications for development outcomes.** The broad-based productivity growth slowdown is likely to impede progress toward development goals. Output per worker in EMDEs remains less than one-fifth of that in advanced economies on average. In low-income countries, the corresponding figure is just one-fiftieth. EMDEs with strong education systems, sound institutions, and diversified economies have shown rapid convergence to advanced-economy productivity levels. However, countries seeking to replicate such successes, or continue along rapid convergence paths, face a range of headwinds, including a more challenging environment to gain market share in manufacturing production, as well as to increase global value chain integration. The COVID-19 global recession may amplify many of these headwinds.

**No silver policy bullet.** The multiple sources of the broad-based labor productivity growth slowdown, combined with the prospective implications of COVID-19, suggest that a comprehensive multi-pronged policy approach is needed to lift productivity. To address immediate pandemic-related macroeconomic and social challenges, policies need to include measures supporting health care systems as well as fiscal, monetary, and financial sector frameworks. Labor productivity can be improved by stimulating investment, improving human capital, facilitating the mobility and reallocation of resources toward more productive and more diverse sectors, fostering firm productivity including by exposing firms to trade and foreign investment; along with measures such as wider internet access to manage technology-driven labor market disruptions and creating a generally growth-friendly macroeconomic and institutional environment. Within these broad strands, specific priorities will depend on country characteristics.

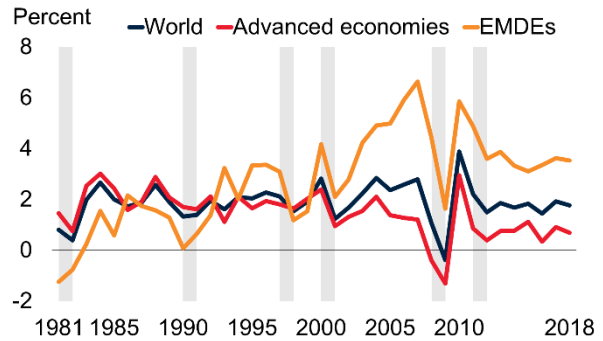
### Figure 1. Productivity

Poverty declined in EMDEs with the fastest pace of productivity growth 1981-2015, and rose in EMDEs with the lowest pace. A broad-based slowdown in productivity growth has been underway. Productivity levels in EMDEs remain less than 20 percent of the advanced-economy average, and just 2 percent in low-income countries. Factors contributing to the productivity deceleration include smaller gains from sectoral reallocation, a slowdown in improvements in many drivers of productivity growth and an increase in the frequency of adverse shocks.

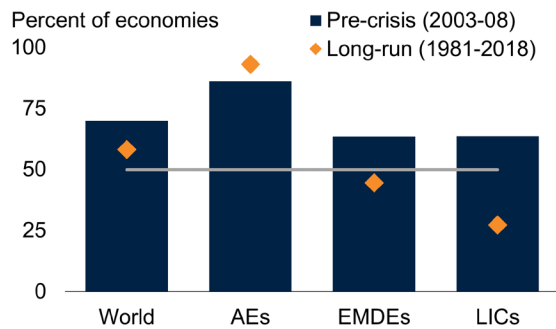
#### A. Annual average change in the poverty rate



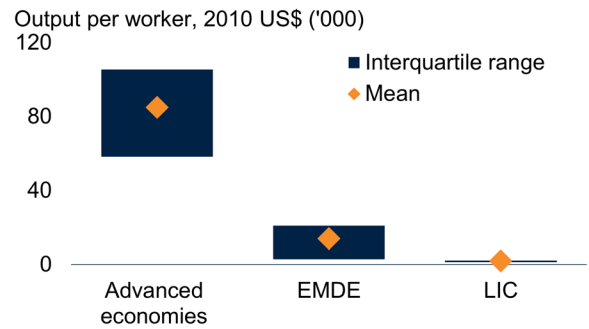
#### B. Global, advanced-economy, and EMDE productivity growth



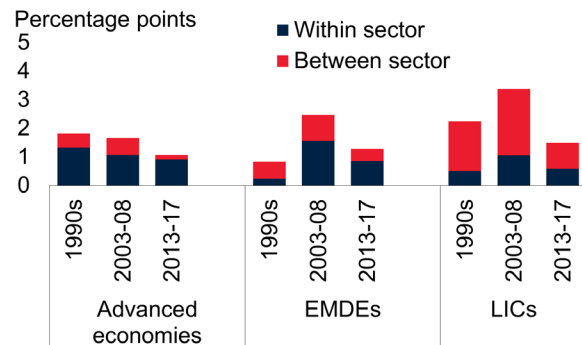
#### C. Share of economies with 2013-18 productivity growth below historical averages



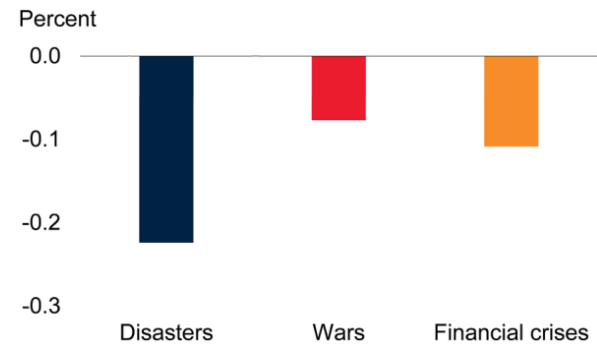
#### D. Labor productivity by country group 2010-18 average



#### E. Within and between sector contributions to productivity growth



#### F. Decline in labor productivity in EMDEs, after natural disasters, wars, and financial crises



Source: Correlates of War (COW); EM-DAT; Kose and Terrones (2015); Laeven and Valencia (2018); Peace Research Institute Oslo (PRIO); Penn World Table; PovcalNet; The Conference Board; World Bank, World Development Indicators.

Note: “AEs” stands for advanced economies. Productivity is defined as output per worker in U.S. dollars (at 2010 prices and exchange rates).

A. Unweighted averages using annual data during 1981-2015. Fastest-growing EMDEs are those in the top quartile by productivity growth; slowest-growing EMDEs are those in the bottom quartile of labor productivity growth. Poverty rate defined as the share of the population living on less than \$1.90 a day (2011 PPP).

B. GDP weighted averages (at 2010 prices and exchange rates). Shaded regions indicate global recessions and slowdowns (1982, 1991, 1998, 2001, 2009 and 2012), as defined in Kose and Terrones (2015) and Kose, Sugawara and Terrones (2020).

C. Share of economies for which average productivity growth during 2013-18 was lower than the long-run (1981-2018) average or the pre-crisis (2003-2008) average. For advanced economies, the pre-crisis growth is calculated as the average during 2003-07., due to the earlier crisis-related impact on productivity growth (-0.4 percent in 2008, while EMDE productivity growth remained over 4 percent).

D. Productivity defined as output per worker in U.S. dollars (at 2010 prices and exchange rates). Based on 35 advanced economies and 126 EMDEs, of which 27 are LICs.

E. Based on samples of 54 countries during 1975-1995, 94 countries during 1995-1999, and 103 countries during 2003-2017.

F. Blue, red, and orange bars indicate the average impact of the event, which is the effect of an event multiplied by the probability of that particular event occurring in EMDEs. Natural disasters include climate, biological, and geophysical disasters (EM-DAT). Wars include intra-state, extra-state, and inter-state wars. Financial crises include banking crisis, currency crisis, and sovereign debt crisis (Leaven and Valencia 2018).