

BOX 2.3.1 Potential growth in Latin America and the Caribbean

A sharp growth slowdown in Latin America and the Caribbean during the past five years has been accompanied by weak and slightly decelerating potential growth, in turn reflecting slowing productivity and less supportive demographic conditions. Trends in the underlying drivers of potential growth suggest that the modest slowdown in potential growth in LAC will persist during the next decade. This outlook underscores the necessity of policy actions that lift physical and human capital and improve productivity.

Introduction

Growth slowed sharply in Latin America and the Caribbean (LAC) in recent years, falling from a most recent high of 6 percent in 2010 to -1.5 percent in 2016, in response to the precipitous drop in global commodity prices and domestic challenges in some of the region's largest economies. Although the slowdown, which began to fade in 2017, appears to have been almost entirely due to cyclical factors, there are worrisome signs that underlying potential growth has also fallen in recent years compared to the long-term (1998–2017) and pre-crisis (2003–07) averages.

This slowdown in LAC's potential growth rate raises questions about the sustainability of the expected regional growth recovery, and doubts about the region's ability to deliver sustained progress on economic well-being and per capita income convergence with advanced economies. In light of the important policy implications of the slowdown in potential growth, this box addresses the following questions:

- How has potential growth evolved in the region and what were its main drivers?
- What are prospects for potential growth?
- What are the policy options to lift potential growth?

The box finds that the recent slowdown in potential growth in LAC was due to weakening productivity growth and less favorable demographic conditions, which hit South America the hardest. More worryingly, it concludes that adverse trends are likely to cause a further slowdown in the coming decade. Reforms to boost investment and female labor force participation and to improve education and health outcomes could help offset the expected deceleration in potential growth, but productivity-enhancing reforms may be the most effective policy approach given the longstanding weakness of total factor productivity (TFP) in the region.

Note: This box was prepared by Dana Vorisek. Shituo Sun provided research assistance.

Evolution of potential growth and its drivers

During 2013–17, potential growth in LAC is estimated to have averaged only around 2.7 percent, slightly less than the long-term (1998–2017) average of 2.9 percent and further below the pre-crisis (2003–07) average of 3.1 percent (Figure 2.3.1.1; Chapter 3).¹ The recent deceleration, which is robust to the choice of measure, reflects a shrinking contribution of both TFP and labor supply to potential growth, rather than a shortfall in capital accumulation.

Total factor productivity growth. Potential TFP growth in LAC, which has long been below that in other emerging market and developing economy (EMDE) regions, has steadily slowed since last peaking in 2007 due to a combination of temporary and long-term factors. Weak investment during the past five years, as commodity-exporting economies struggled to adapt to falling commodity prices, held back the absorption of productivity-enhancing new technologies (OECD 2016b). Worsening terms of trade, a consequence of the downturn in commodity prices during most of 2013–17, may have also dampened TFP growth in commodity exporters in the region, by slowing the pace of technology adoption and reducing spending on research and development (Aslam et al. 2016). This hypothesis is supported by evidence that the positive terms-of-trade shock during 2001–07 explained more than one-quarter of the average growth rate of TFP in Mexico, Chile, and Peru (Castillo and Rojas 2014).

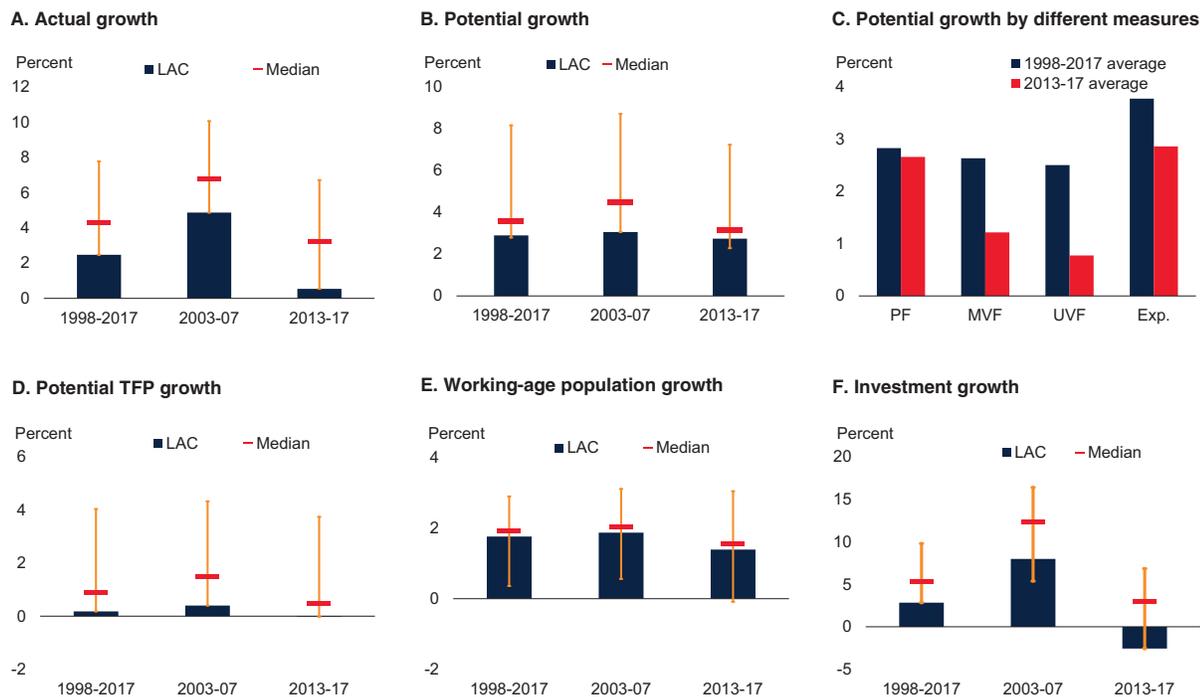
Education- and skills shortcomings have had a long-term dampening effect on productivity growth in LAC. Although school enrollment and completion rates have steadily risen in recent decades, completion rates, particularly at the tertiary level, remain poor (OECD/ECLAC/CAF 2016). Moreover, the low quality of primary and secondary education in the region relative to international standards and to countries with similar levels of per-capita income hinders productivity gains from increased access to education (OECD 2015; OECD/

¹Details on the production function approach to estimating potential growth are provided in Annex 3.1.

BOX 2.3.1 Potential growth in Latin America and the Caribbean (continued)

FIGURE 2.3.1.1 Regional growth and drivers of potential growth

Growth in LAC during 2013–17 was sharply lower than in the pre-crisis (2003–07) period or the long term (1998–2017). The growth slowdown was accompanied by weak and slightly decelerating potential growth, reflecting decreasingly favorable trends in its fundamental drivers.



Sources: Haver Analytics, national statistical agencies, Penn World Tables, UN Population Prospects, World Bank.

A, B, D.-F. Blue bars show simple averages during year spans of annual GDP-weighted averages of LAC countries. Red markers show median GDP-weighted averages of the six EMDE regions and vertical lines denote range of regional GDP-weighted averages.

B. Potential growth is measured using the production function approach. GDP-weighted averages for a sample of 15 LAC economies and 49 EMDE economies.

C. Bars reflect estimates based on different potential growth measures. "PF" stands for potential growth estimates using the production function approach, "MVF" stands for those derived using the multivariate filter, "UVF" for those derived using the Hodrick-Prescott filter, and "Exp." for those based on 5-year-ahead IMF *World Economic Outlook* forecasts. Details on the production function approach to estimating potential growth are provided in Annex 3.1; details on statistical filter approaches are provided in Annex 3.2. Sample includes a consistent set of five economies: Argentina, Brazil, Chile, Mexico, and Peru.

ECLAC/CAF 2016). Weak productivity growth in LAC also reflects still-stringent labor and product market regulations and a high level of informality (IDB 2013).

Numerous studies have documented that weak TFP growth has been the principal factor explaining low potential growth in the region (Loayza, Fajnzylber, and Calderón 2005; IMF 2017f) and in individual countries.² During the nearly half-century leading up to the financial crisis, low TFP growth, rather than weak capital or labor accumulation, has been the main reason for a widening income gap between most LAC countries and the United States (Daude and Fernández-Arias 2010).

² See, for instance, Faal (2005) on Mexico, and Ollivaud, Guillemette, and Turner (2016) on Chile.

Labor supply. Although the working-age share of the population in LAC continues to expand marginally, the rate of working-age population growth was slower during the past five years than during the pre-crisis years or the long term. On the other hand, female labor force participation in LAC has risen rapidly relative to other EMDE regions, from an average of 47 percent in 1998–2002 to 53 percent in 2013–17. Over the long term (1998–2017), the rise in female labor force participation contributed 0.3 percentage point to potential growth in LAC.

Physical capital accumulation. Fixed capital investment contracted each year between 2014 and 2017 in LAC and, in particular, South America. The deterioration in terms of trade was a key factor underlying the investment decline,

BOX 2.3.1 Potential growth in Latin America and the Caribbean (continued)

but policy uncertainty and bouts of tightening of financial conditions have also been important (IMF 2015, 2016d; World Bank 2016b, 2017p). These factors were compounded in some commodity-exporting countries by the impact of low global commodity prices on fiscal revenues, which led to cuts in public capital expenditures.

Comparison to other EMDE regions. Decreasingly favorable trends in the main drivers have resulted in potential growth in LAC lagging that of most other EMDE regions in the past five years (Figure 2.3.1.2). Similar to other commodity-reliant regions, such as the Middle East and North Africa and Sub-Saharan Africa (SSA), productivity in LAC contributes very little to potential growth, and in the most recent five years has contributed almost nothing. At the same time, labor has begun contributing less to potential growth in LAC as working-age population growth has decelerated, albeit much less strongly than in East Asia and Pacific (EAP) and in Europe and Central Asia (ECA). Like in other EMDE regions where large post-crisis investment stimulus was implemented, such as in SSA and ECA, capital accumulation still contributed more to potential growth in LAC in 2013–17 than during previous periods.

Subregional patterns. The recent slowdown of potential growth in LAC was predominantly due to the South America subregion—by far the largest of the three subregions in economic size, and where half of the countries experienced a slowdown. Potential growth in Mexico and Central America has been comparatively stable over the past two decades. Although the contribution of TFP to potential growth in Mexico and Central America remains low relative to that in other EMDE regions, and was slightly negative in 2013–17, this LAC subregion avoided the slowdown in potential TFP growth that lowered potential growth in South America, commodity-exporting EMDEs, and EMDEs as a whole. TFP made a notably higher contribution to potential growth in the Caribbean than in other LAC subregions.

Potential growth prospects

In the years ahead, potential growth in LAC appears set to continue to decelerate modestly. Demographic trends will continue to become less favorable. Investment growth is expected to recover but not rapidly and not to the stimulus-fueled rates of the early 2010s. Thus, without significant policy changes or a major productivity breakthrough, potential growth in LAC is expected to continue to weaken, to an average of 2.4 percent in the

coming decade, approximately 0.4 percentage point below the rate achieved in the past five years (Figure 2.3.1.3).

The deceleration of potential growth in 2018–27 would result from weaker capital accumulation and labor force growth, which would shave off slightly less than 0.3 and 0.2 percentage point, respectively, of the 2.7 percent potential growth in 2013–17, while TFP contributes slightly more positively. The contribution of labor to potential growth will be constrained not only by a working-age population share that is expected to peak around 2020, but also by limited capacity for an additional increase in region-wide female labor force participation given already relatively high rates compared to other EMDE regions (Sosa, Tsounta, and Kim 2013). While investment growth is projected to recover from the recent period of weakness, it is not expected to return to the rates observed prior to the oil price plunge in mid-2014, partly due to a recent rise in policy uncertainty.

Despite the continued weakness in potential growth in LAC, a more supportive demographic profile relative to most other regions will help LAC avoid a large slowdown of the sort in store for EAP. The prospect of decelerating potential growth in South America raises concerns about the sustainability of an expected recovery in actual growth in LAC driven by accelerating activity in the South America subregion, and suggests that per capita income convergence with advanced economies will be further delayed.

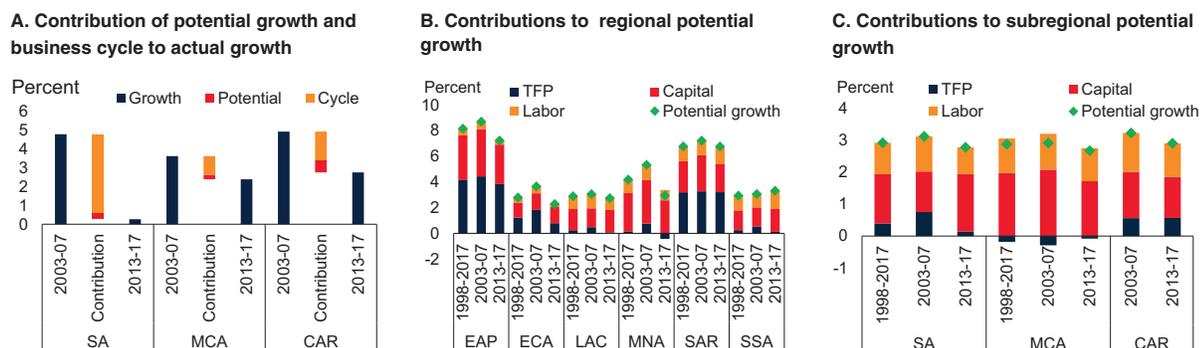
Policy options to lift potential growth

The analysis in Chapter 3 can be used to illustrate the impact of policies to improve physical capital and human capital and increase labor supply (Annex 3.1). In a scenario in which the largest 10-year improvements on record in education and health outcomes, investment, and female labor force participation are repeated, potential growth in LAC could be lifted by about 0.6 percentage point in the coming decade, more than enough to offset the projected deceleration in potential growth (Figure 2.3.1.4). The bulk of the impact would result from filling investment needs, which remain large in LAC and are constrained by limited public funds to expand investment spending (Vashakmadze et al. 2017). In such an environment, increasing the efficiency of public investment, perhaps through additional use of public-private partnerships or by implementing reforms that improve the business environment, is key.

BOX 2.3.1 Potential growth in Latin America and the Caribbean (continued)

FIGURE 2.3.1.2 Regional potential growth

The growth slowdown in LAC in recent years, although almost entirely due to cyclical factors, was also accompanied by a modest slowdown in already-weak potential growth. The slowdown in potential growth in LAC in 2013–17, which is robust to the choice of measure, reflected a falling contribution of labor supply and TFP. The potential growth slowdown was stronger in South America than in other subregions.



Sources: Haver Analytics, Penn World Tables, UN Population Prospects, World Bank.

A.-C. Simple averages during year spans of annual GDP-weighted averages. Potential growth is measured using the production function approach.

A.-C. SA = South America, MCA = Mexico and Central America, and CAR = the Caribbean. SA includes eight economies (Argentina, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, and Uruguay), MCA includes five economies (Costa Rica, Guatemala, Honduras, Mexico, and Panama), and CAR includes three economies (Antigua and Barbuda, Dominican Republic, and Jamaica).

B. EAP = East Asia and Pacific, ECA = Europe and Central Asia, MNA = Middle East and North Africa, SAR = South Asia, and SSA = Sub-Saharan Africa. GDP-weighted averages for a sample of four EAP economies, 10 ECA economies, 15 LAC economies, five MNA economies, two SAR economies, and 13 SSA economies.

C. The 1998-2017 bar for the Caribbean is missing due to data availability for the Dominican Republic, the largest economy in the subregion.

In some cases, the gains from reforms in the areas considered by the scenario analysis could be considerably larger given relatively unsupportive current conditions. In Mexico and a number of Central American economies, for instance, female labor force participation is well below that of male participation. Measures to improve access to childcare and parental leave have been found to raise female labor force participation in Latin America (Novta and Wong 2017). Moreover, since Central American economies have some of the highest child dependency ratios and worst education attainment within LAC, this subregion would likely benefit significantly from investments in education and health care. In many countries in the region, students from the poorest households are substantially less competent than those from the richest households in reading and mathematics (World Bank 2017j). Targeting improved skills absorption by poor students may improve productivity.

Reforms in several areas beyond the scope of the scenario analysis also stand to boost potential growth by raising productivity growth:

Improve labor market functioning. Labor markets in the LAC region have long been less flexible than in other EMDEs. Reforms to deregulate labor markets, including

in the areas of wage determination, hiring and firing constraints, reduction of mismatches between skills and jobs, and improved alignment of compensation with productivity, would likely pay important productivity dividends. Moreover, improving the quality of education could also raise labor productivity (Ferreira et al. 2017).

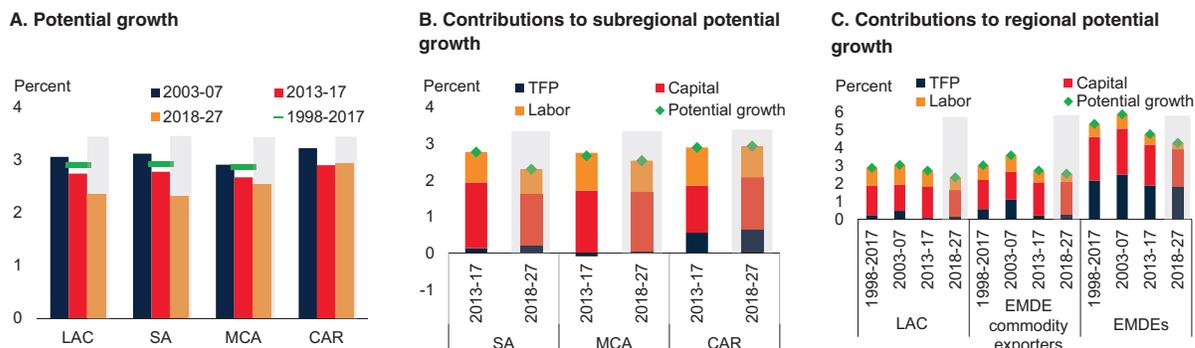
Lower informality. A key priority for the LAC region should be to encourage a shift of resources from the informal economy, where productivity is lower than in the formal economy (La Porta and Shleifer 2014). Indeed, a 1-percentage-point drop in the share of the informal economy has been associated with a 0.5-percentage-point narrowing of the gap between TFP in LAC and the United States (IDB 2013). Together with better-functioning labor markets, policy interventions that simplify business licensing and tax procedures, increase access to social security systems, and lower tax rates for small and micro enterprises would also help reduce informality (Garcia-Saltos, Teodoru, and Zhang 2016; OECD 2017).³ The

³ For a number of countries in LAC, not only tax system reform but also comprehensive pension system reform would strengthen potential growth, by freeing fiscal resources for other uses and encouraging investment through improved investor confidence.

BOX 2.3.1 Potential growth in Latin America and the Caribbean (continued)

FIGURE 2.3.1.3 Regional potential growth prospects

Trends in the underlying drivers suggest that the modest slowdown in potential growth in LAC will continue during the next decade, particularly in South America, owing to slowing labor supply growth and capital accumulation. The weakness is expected to be broad based, with potential growth in about four out of five economies in the region expected to be below the long-term average. Although potential growth in LAC is expected to continue to be well below the EMDE average, it is likely to be on par with that in commodity-exporting EMDEs.



Sources: Haver Analytics, Penn World Tables, UN Population Prospects, World Bank.
 A, B. Simple averages during year spans of annual GDP-weighted averages. Potential growth is measured using the production function approach. SA = South America, MCA = Mexico and Central America, and CAR = the Caribbean. GDP-weighted averages for a sample of eight economies in South America, five economies in Mexico and Central America, and three economies in the Caribbean (as given in note below Figure 2.3.1.2).
 A. The 1998-2017 average for the Caribbean is missing due to data availability for the Dominican Republic, the largest economy in the subregion.
 C. Simple averages during year spans of annual GDP-weighted averages of 15 LAC economies, 29 commodity-exporting economies, and 49 EMDE economies.

experience of several LAC countries in recent years suggests that creating conditions conducive to economic growth is also key to lowering informality (OECD 2017).

Foster innovation. There are important opportunities to spur innovation in LAC, which underperforms other EMDE regions in its capacity to innovate (World Economic Forum 2017). For example, ensuring that the education system prepares students to identify opportunities for innovation, supporting collaboration between institutions where innovation occurs (firms, universities, research institutes), and ensuring that financing for innovation is accessible could be beneficial (Vostroknutova et al. 2015). Creating incentives for firms to invest in knowledge may also boost productivity. Latin American firms that invest in knowledge are found to be better able to innovate than those that do not, and firms that innovate are in turn found to have significantly higher labor productivity than firms that do not (Crespi and Zuñiga 2012; Crespi, Tacsir, and Vargas 2016).

Deepen trade integration. Despite the existence of several extra- and intra-regional trade agreements, LAC is less open to trade than most of the six EMDE regions (World Bank 2016b). Trade (exports plus imports) represented

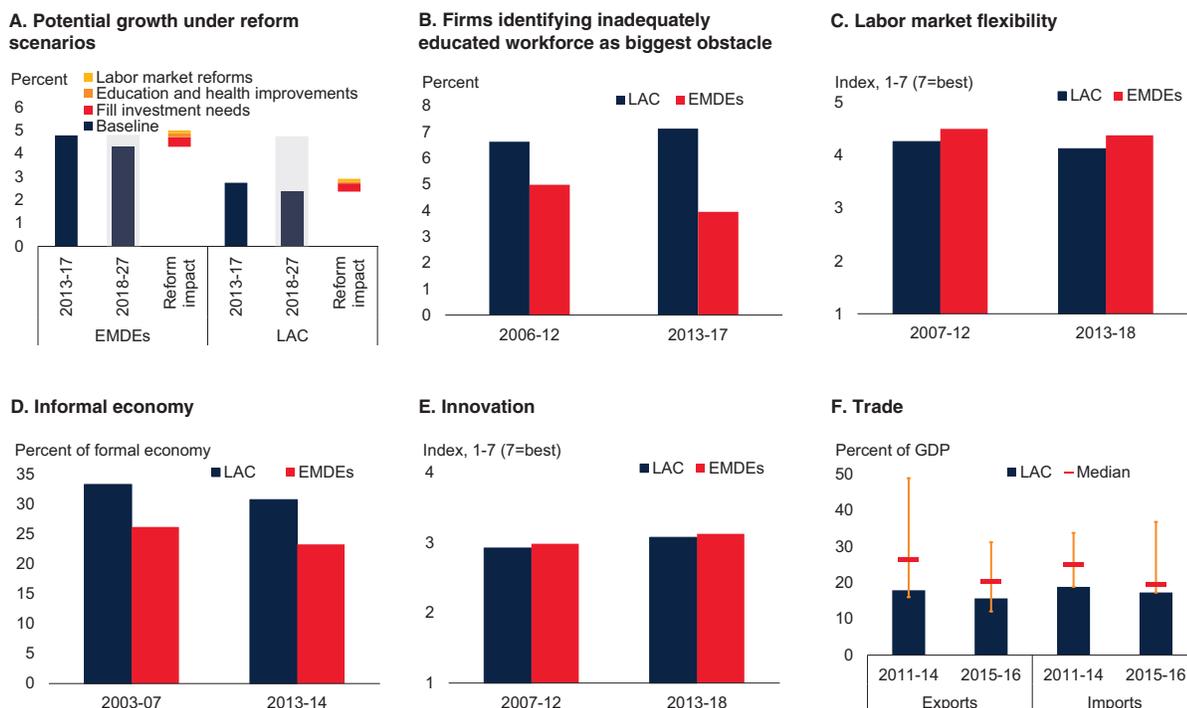
one-third of regional GDP in LAC in 2016, compared to a median of more than two-fifths in all EMDE regions. Nor is the region deeply integrated into global supply chains (Esteveordal 2012; de la Torre et al. 2015). LAC also has one of the lowest intra-regional trade intensities, partly because of a sparse regional road and rail network and mediocre-quality logistical services relative to other regions. Increasing trade integration, whether through formal trade agreements or otherwise, could lift productivity by increasing competition and providing opportunities for firms to specialize and to benefit from economies of scale. In the medium to long terms, increased trade linkages can facilitate knowledge and technology transfer through traded goods (Bown et al. 2017). This transfer of embedded knowledge and technology is key especially for the large number of small and medium enterprises in the region (OECD 2016). Policy interventions that enhance upstream participation in global value chains could also improve firm productivity (Montalbano, Nenci, and Pietrobelli 2016).

Conclusion

At an average of 2.7 percent in 2013–17, potential growth in LAC was weak and slightly lower than during the long-

BOX 2.3.1 Potential growth in Latin America and the Caribbean (concluded)**FIGURE 2.3.1.4 Policies to raise potential growth**

The prospect for a further slowdown in potential growth in LAC underscores the necessity of reforms, especially reforms that increase productivity. A combination of additional investment, education and health improvements, and labor force participation could raise potential growth by about 0.6 percentage point. Productivity could be accelerated by reducing informality, improving labor market flexibility, fostering innovation, and deepening trade integration.



Sources: IMF Direction of Trade Statistics, World Economic Forum Global Competitiveness Index, World Bank Enterprise Surveys, World Bank.

A. Simple averages during year spans of GDP-weighted averages for 15 LAC economies and 49 EMDE economies in each year. Derived using the methodology described in Annex 3.1.

B. Simple averages during year spans of simple averages of rates in each year. Sample includes seven LAC economies and 65 EMDE economies.

C. E. Simple averages during year spans of simple averages of scores in each year. Sample includes 26 LAC economies and 115 EMDE economies.

D. Simple averages during year spans of GDP-weighted averages in each year. Sample includes 25 LAC economies and 125 EMDE economies.

F. Blue bars show simple averages during year spans of GDP-weighted average of LAC countries in each year. Red markers show median GDP-weighted averages of the six EMDE regions and vertical lines denote range of regional GDP-weighted averages. Sample includes 32 LAC economies and 155 EMDE economies.

term (1998–2017) and pre-crisis (2003–07) periods, reflecting slowing productivity and less supportive demographic conditions. Trends in the underlying drivers of potential growth suggest that the modest slowdown will persist during the next decade, particularly in South

America, owing to falling labor supply growth and capital accumulation. Policy actions, including those targeting longstanding weakness in TFP growth, may counter the projected slowdown in potential growth.