

MCKINSEY GLOBAL INSTITUTE

WHERE WILL LATIN AMERICA'S GROWTH COME FROM?

APRIL 2017

DISCUSSION PAPER



Andrés Cadena | Bogotá
Jaana Remes | San Francisco
Nicolás Grosman | Mexico City
André de Oliveira | Costa Rica



MCKINSEY
GLOBAL
INSTITUTE
RESEARCH.
INSIGHT.
IMPACT.

MCKINSEY GLOBAL INSTITUTE

Since its founding in 1990, the McKinsey Global Institute (MGI) has sought to develop a deeper understanding of the evolving global economy. As the business and economics research arm of McKinsey & Company, MGI aims to provide leaders in the commercial, public, and social sectors with the facts and insights on which to base management and policy decisions. For the second year running, the Lauder Institute at the University of Pennsylvania ranked MGI the world's number-one private-sector think tank in its 2016 Global Think Tank Index.

MGI research combines the disciplines of economics and management, employing the analytical tools of economics with the insights of business leaders. Our “micro-to-macro” methodology examines microeconomic industry trends to better understand the broad macroeconomic forces affecting business strategy and public policy. MGI's in-depth reports have covered more than 20 countries and 30 industries. Current research focuses on six themes: productivity and growth, natural resources, labor markets, the evolution of global financial markets, the economic impact of technology and innovation, and urbanization.

Recent reports have assessed the economic benefits of tackling gender inequality, a new era of global competition, Chinese innovation, and digital globalization. MGI is led by four McKinsey & Company senior partners: Jacques Bughin, James Manyika, Jonathan Woetzel, and Frank Mattern, MGI's chairman. Michael Chui, Susan Lund, Anu Madgavkar, Sree Ramaswamy, and Jaana Remes serve as MGI partners. Project teams are led by the MGI partners and a group of senior fellows, and include consultants from McKinsey offices around the world. These teams draw on McKinsey's global network of partners and industry and management experts. Input is provided by the MGI Council, which coleads projects and provides guidance; members are Andres Cadena, Sandrine Devillard, Richard Dobbs, Katy George, Rajat Gupta, Eric Hazan, Eric Labaye, Acha Leke, Scott Nyquist, Gary Pinkus, Oliver Tonby, and Eckart Windhagen. In addition, leading economists, including Nobel laureates, act as research advisers. The partners of McKinsey fund MGI's research; it is not commissioned by any business, government, or other institution. For further information about MGI and to download reports, please visit www.mckinsey.com/mgi.

IN BRIEF

WHERE WILL LATIN AMERICA'S GROWTH COME FROM?

Over the past 15 years, Latin American economies have, on average, grown faster than those of developed regions but still lagged far behind the growth of other developing economies. Now growth is coming under further threat from declining fertility rates, an end to the commodity boom, and the risk of increased protectionism. The imperative is to forge a broad agenda that removes obstacles to competitiveness, promotes the adoption of digital and automation technologies, addresses labor-market pressures, and raises investment in long-term drivers of productivity.

- Over the past 15 years, Latin American economies have posted average annual GDP growth of about 3 percent, far slower than growth in other developing regions. China, South Asia, and sub-Saharan Africa exhibited the fastest annual growth, at more than 5 percent, over this period. Almost 80 percent of Latin America's GDP growth over the past 15 years has come from strong labor inputs reflecting growing populations rather than rising productivity. Output per worker has risen at only 0.6 percent per year since 2000, one of the weakest productivity performances of any region in the world.
- The imperative to bolster growth is rising as three disruptive forces are set to combine to constrain Latin American growth. Falling fertility rates will undermine employment-led growth. The end of the commodity-price boom that has helped fuel the region's growth is another concern. In addition, there is a risk of increased protectionism that could weaken the exports component of growth.
- Between 2000 and 2015, employment grew at a compound annual rate of 2.3 percent compared with productivity growth of 0.6 percent. Between 2015 and 2030, the rate of employment growth is expected to drop to less than half to only 1.1 percent a year. Without a change in productivity growth, this means that GDP growth in Latin America would be 40 percent weaker over the next 15 years than it was in the previous 15.
- To counter the threat to growth, we see four major imperatives that Latin American countries should consider prioritizing: expand high-value-added activities across key value chains by removing obstacles to competitiveness; promote the efficient adoption of digital and automation technologies; address the pressures created by a declining labor force by strengthening the link between education and employment and narrowing gender gaps; and invest in long-term drivers of productivity growth, including strengthening macroeconomic fundamentals, stepping up infrastructure investment, and broadening access to capital.
- Governments, businesses, and individuals all need to play a part in translating this considerable theoretical potential into real impact. The challenges that face Latin America are wide-ranging and persistent, but broad, concerted leadership from society can shape a new agenda that will enable Latin America to weather the demographic storm, transform productivity, and bolster growth for the long term.

WHERE WILL LATIN AMERICA'S GROWTH COME FROM?

Over the past 15 years, Latin American economies have, on average, posted faster GDP growth than those of developed regions but still lagged far behind the GDP growth of other developing economies. Now growth is under further threat as three disruptive forces hit the region simultaneously. The first disruption is declining fertility rates that undermine the growth of labor supply. In a region where around 80 percent of growth has come from a rising population, this matters. Second is the end of the commodity supercycle, a major change for Latin America, where high commodity prices have fueled growth. Third is the threat of increased protectionism, notably in the United States, which could put at risk the export-led share of Latin America's growth.

Given the potential constraint on growth as these disruptions play out, how should Latin America respond? In this paper, we discuss four priorities to be considered: expand high-value-added activities across key value chains by removing obstacles to competitiveness; promote the efficient adoption of digital and automation technologies; address the pressures created by a declining labor force by strengthening the link between education and employment and narrowing gender gaps; and invest in long-term drivers of productivity growth.

LATIN AMERICA HAD THE LOWEST GDP GROWTH OF ANY DEVELOPING REGION OVER THE PAST 15 YEARS AND RELIED MAINLY ON AN EXPANDING WORKFORCE

Over the past 15 years, Latin American economies have posted average annual GDP growth of about 3 percent. That was superior to the growth rates achieved by most developed economies but lagged far behind those of developing regions. China, South Asia, and sub-Saharan Africa exhibited the fastest annual growth, at more than 5 percent a year, over this period (Exhibit 1).

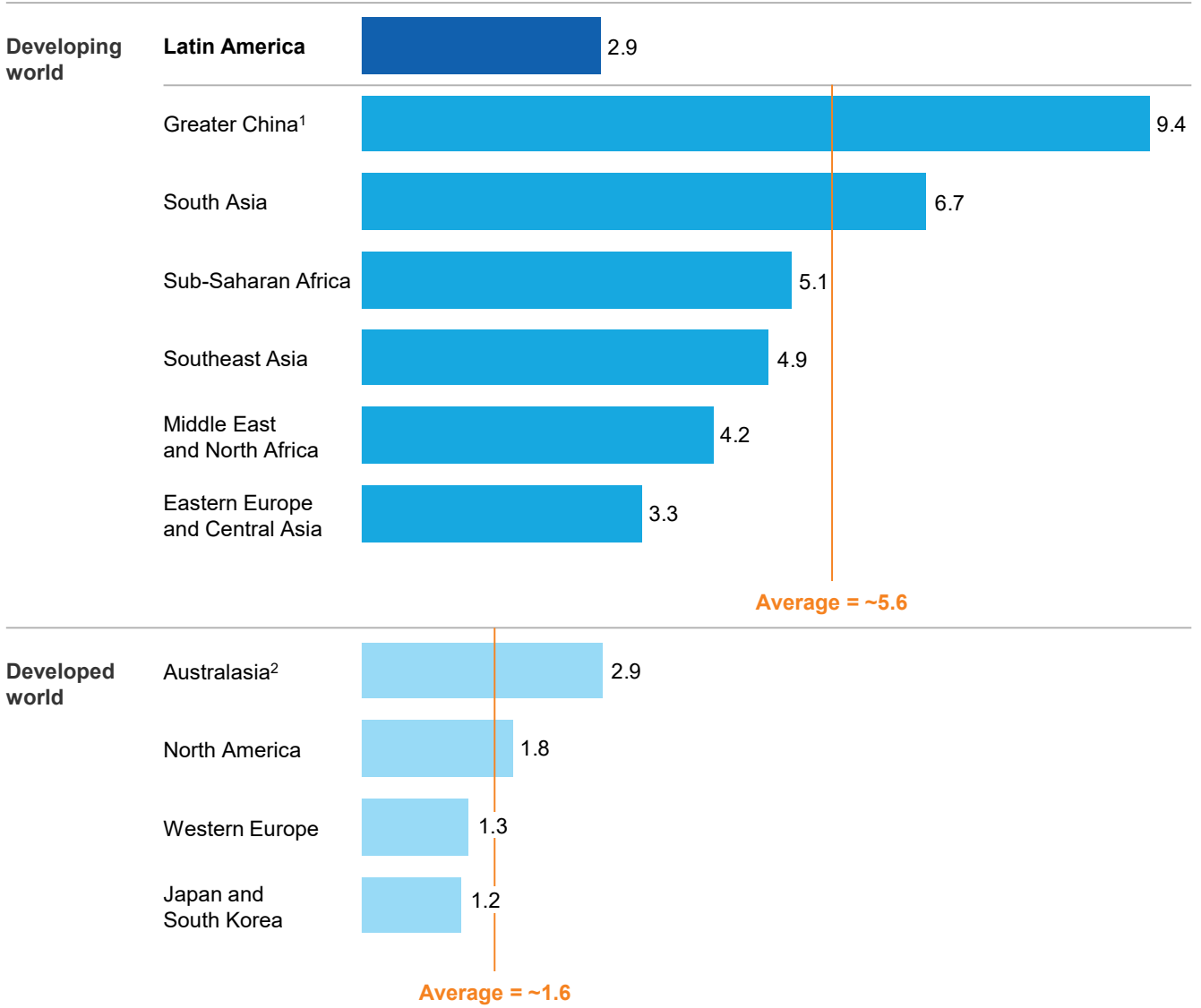
However, Latin America's growth performance has not been uniform. The strongest annual growth rates over the past 15 years have been achieved by the Andean economies of Bolivia, Colombia, Ecuador, and Peru, and by Costa Rica, Cuba, the Dominican Republic, and Panama. In these economies, growth rates ranged between 4.2 and 6.5 percent. The largest economies, Brazil and Mexico, attained disappointingly low annual growth rates of 2.2 percent and 2.7 percent, respectively. The recent economic crises in Argentina and Venezuela also pushed their growth rates below the average for the region, to 2.5 percent and 2.1 percent, respectively (Exhibit 2).

Exhibit 1

Over the past 15 years, Latin America's economies have grown by around 3 percent a year, slower than any other developing region

GDP growth per region, 2000–15

Compound annual growth rate
%



1 Includes China, Hong Kong, Macau, and Taiwan.

2 Includes Australia and New Zealand.

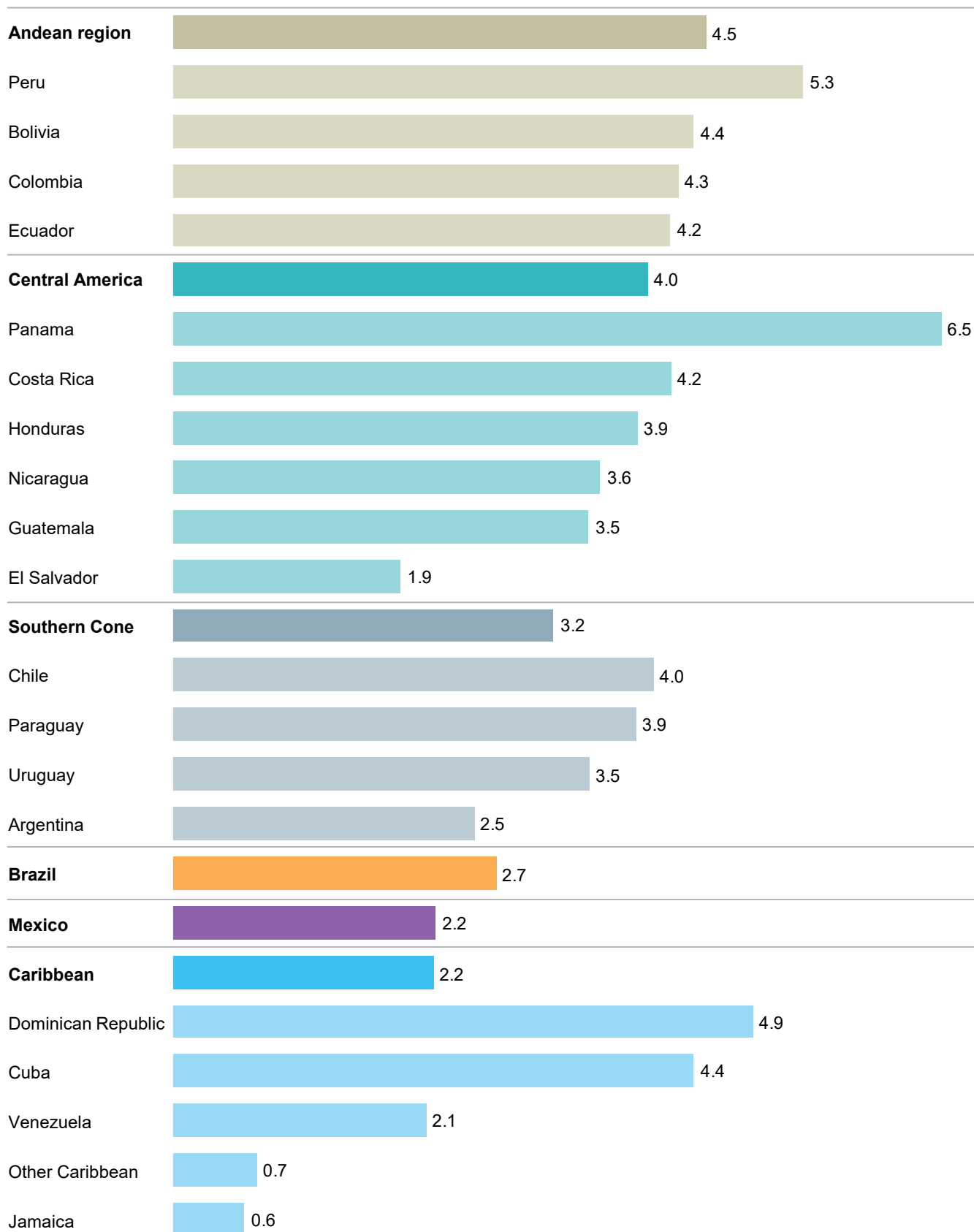
SOURCE: World Bank; McKinsey Global Institute analysis

Exhibit 2

Growth has been strongest across the Central American and Andean regions and in some Caribbean countries

GDP compound annual growth rate, by Latin American subregion and country, 2000–15

%



SOURCE: World Bank; Conference Board Total Economy Database 2016; McKinsey Global Institute analysis

The composition of the region's growth raises concerns about sustainability. Almost 80 percent of GDP growth over the past 15 years has come from rising labor inputs reflecting growing populations rather than from productivity. The contribution from employment has been larger in Latin America than in any other region in the world. Output per worker has risen at only 0.6 percent per year since 2000, which was one of the weakest productivity performances of any region (Exhibit 3).

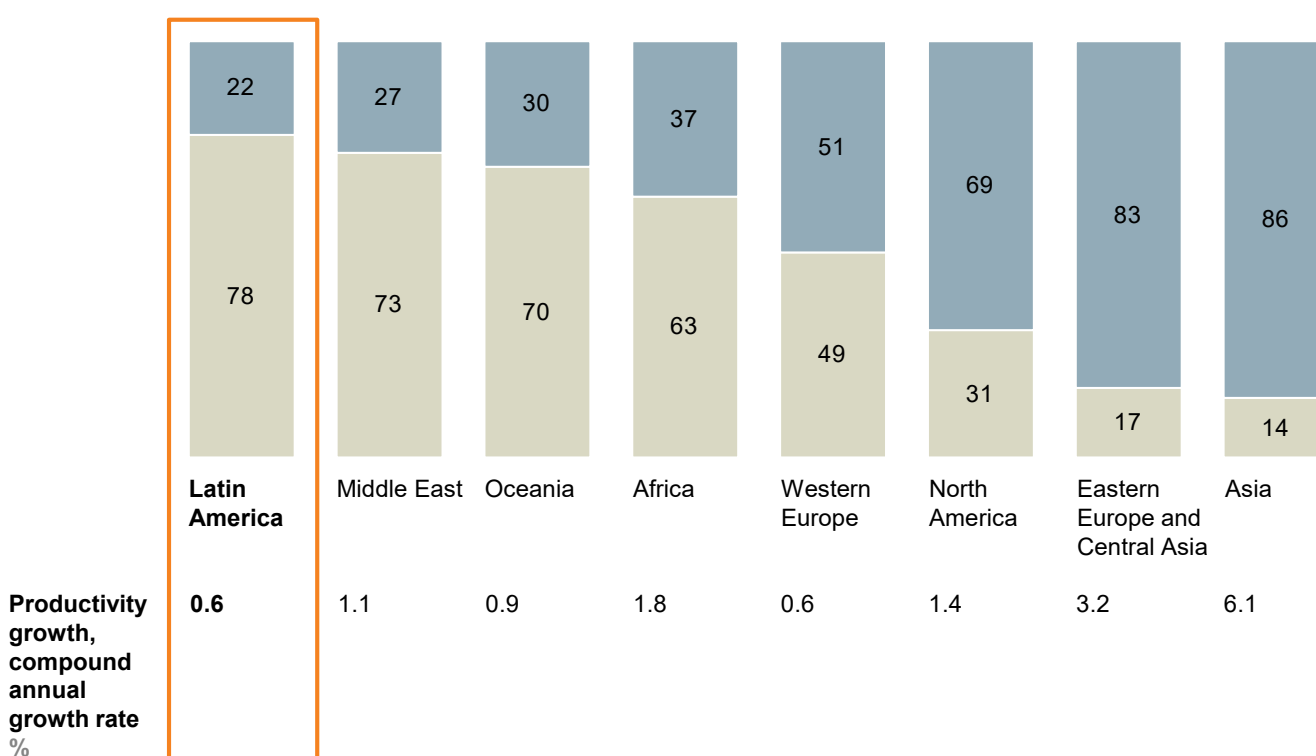
Exhibit 3

Employment growth generated ~80 percent of GDP growth in the past 15 years; productivity has been among the weakest in any region

Contribution of labor input and productivity increases to GDP growth, 2000–15

%

■ Productivity contribution¹
■ Labor input contribution²



1 Labor productivity growth is measured as real GDP per employee.

2 Higher labor input reflects increased population and changes in participation and employment rates; calculated as a residual.

SOURCE: Conference Board Total Economy Database 2016; McKinsey Global Institute analysis

Productivity growth is the key for driving income and wage growth; the two move closely in tandem (Exhibit 4). In developing countries overall, productivity grew at 3.9 percent a year and per capita GDP at 4.2 percent between 2000 and 2015. In Latin America, the equivalent figures were only 0.6 percent and 1.6 percent. The imperative to raise productivity in Latin America is widely recognized by institutions including the Organisation for Economic Co-operation and Development (OECD) and the World Bank.¹

¹ The OECD said, "The challenge for governments in the region is to put their economies back on a stronger, fairer, and more sustainable growth trajectory by undertaking the comprehensive structural reforms needed to accelerate productivity growth while improving social cohesion." See *Promoting productivity for inclusive growth in Latin America*, OECD Better Policies Series, 2016. One World Bank official said, "[I]f the region is to make of this decade 'the decade of Latin America and the Caribbean,' the key challenge will be to tackle its low levels of productivity and competitiveness." See Hasan Tuluy, *Latin America: Facing the challenge of productivity to sustain progress*, speech to the Seventh Annual Latin America Conference, Miami, United States, May 11, 2012.

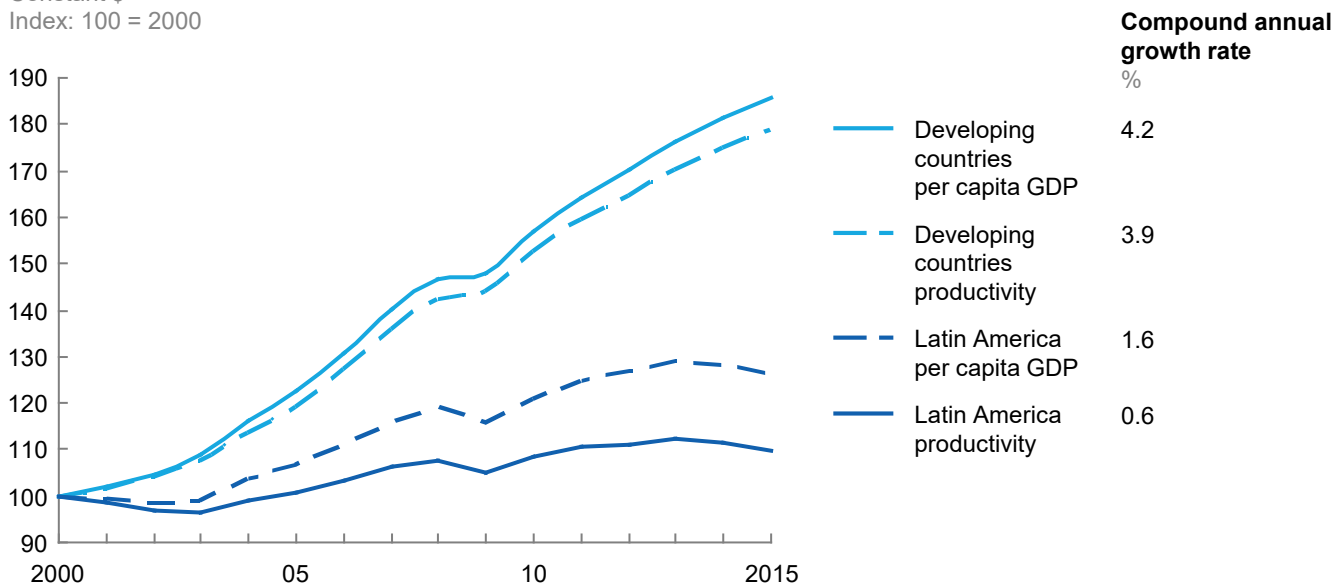
Exhibit 4

Slow productivity growth is the key challenge for the region’s development, productivity being the key source of growth in income

Per capita GDP and productivity growth in Latin America vs. developing countries, 2000–15

Constant \$

Index: 100 = 2000



SOURCE: IMF; World Bank; ILO; McKinsey Global Institute analysis

THREE DISRUPTIVE FORCES ARE SET TO CONSTRAIN LATIN AMERICA’S GROWTH

Three disruptive forces threaten the region’s already lackluster growth trajectory over the coming decade. Falling fertility rates undermine employment-led growth that has, as we have noted, been responsible for around 80 percent of the region’s GDP growth over the past 15 years. The end of the commodity-price boom that has helped fuel the region’s growth is another concern. In addition, there is a risk of increased protectionism that could weaken the export component of growth.

Declining fertility will constrain GDP growth absent a change in productivity growth

The growth in the labor force that was so important for driving growth is steadily declining as fertility rates drop across Latin America. Births per woman in the region declined from more than 2.6 in 2000 to 2.1 in 2015. Over the same period, the age distribution in Latin America has changed dramatically and is set to continue to do so. By 2050, births per woman are expected to fall further below 1.8 and there will be little difference in the share of people across age categories, a marked contrast with the past, when the young were far more numerous than the middle-aged or the elderly (Exhibit 5).

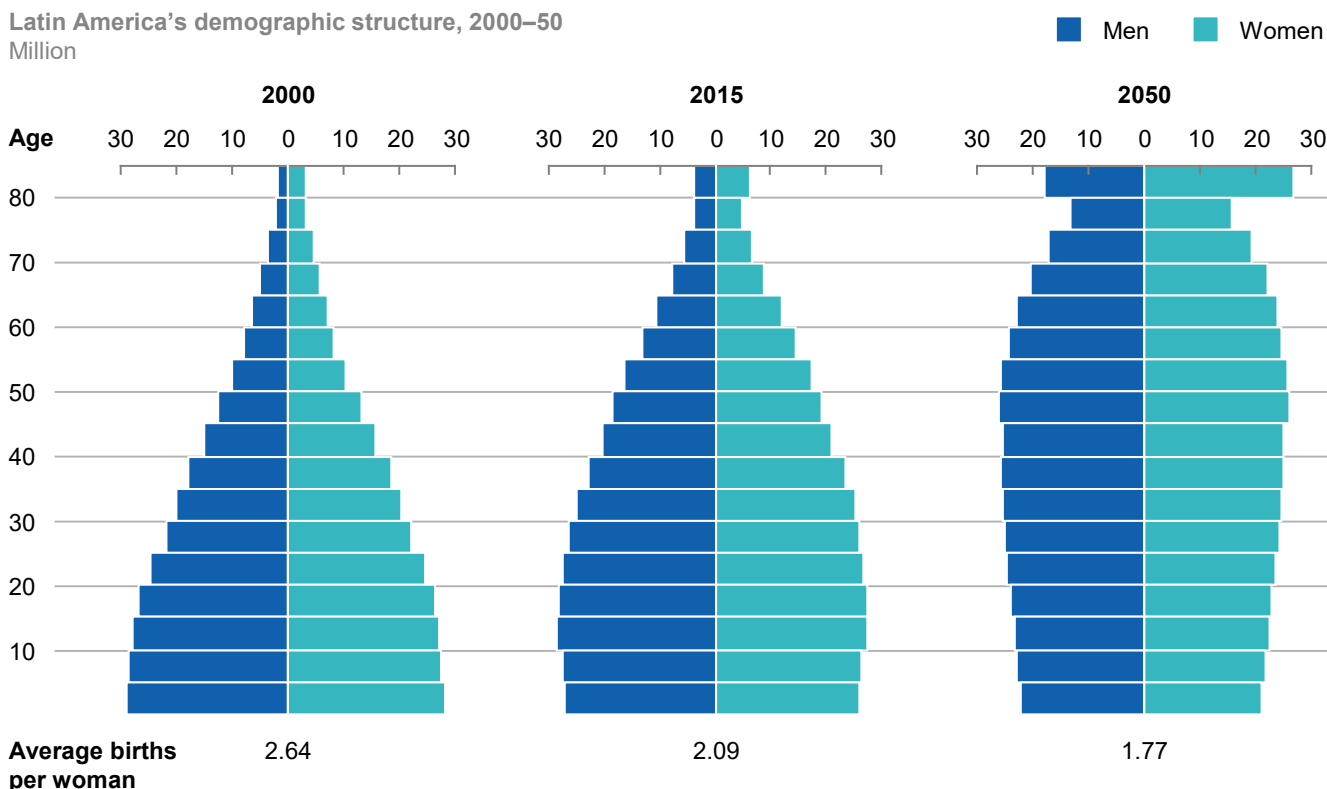
That leaves productivity as the main hope for fostering growth in an aging region.² Between 2000 and 2015, employment grew at a compound annual rate of 2.3 percent compared with productivity growth of 0.6 percent. By 2030, the rate of employment growth is expected to drop to only 1.1 percent a year. Without a change in productivity growth, this implies that GDP growth in Latin America will drop by 40 percent over the next 15 years compared with the previous 15.

² For an analysis of the global picture, see *Global growth: Can productivity save the day in an aging world?* McKinsey Global Institute, January 2015.

Exhibit 5

The base of Latin America’s population pyramid has been shrinking fast and is expected to flatten out by 2050

Latin America’s demographic structure, 2000–50
Million



SOURCE: World Bank; UN World Population Prospects; McKinsey Global Institute analysis

Looking at individual Latin American economies, the impact of demographic change will be most marked in the large economies of Argentina, Brazil, and Colombia, which have been highly dependent on employment growth and are experiencing large declines in fertility rates. Potentially the biggest reduction in growth, at 50 percent, is in Colombia, with Brazil and Argentina not far behind at 45 percent and 46 percent, respectively (Exhibit 6).

The commodity supercycle has ended, undermining a key source of Latin American growth

Rapidly rising demand for resources from China and other fast-growing Asian economies was a powerful engine for Latin American growth during the first decade of this millennium. Growth in the Andes region benefited the most. The GDP contribution of exports of natural resources in the Andes region increased from 10 to 13 percent during the past 15 years. Minerals accounted for 46 percent of these exports, vegetables 13 percent, and precious metals 9 percent.

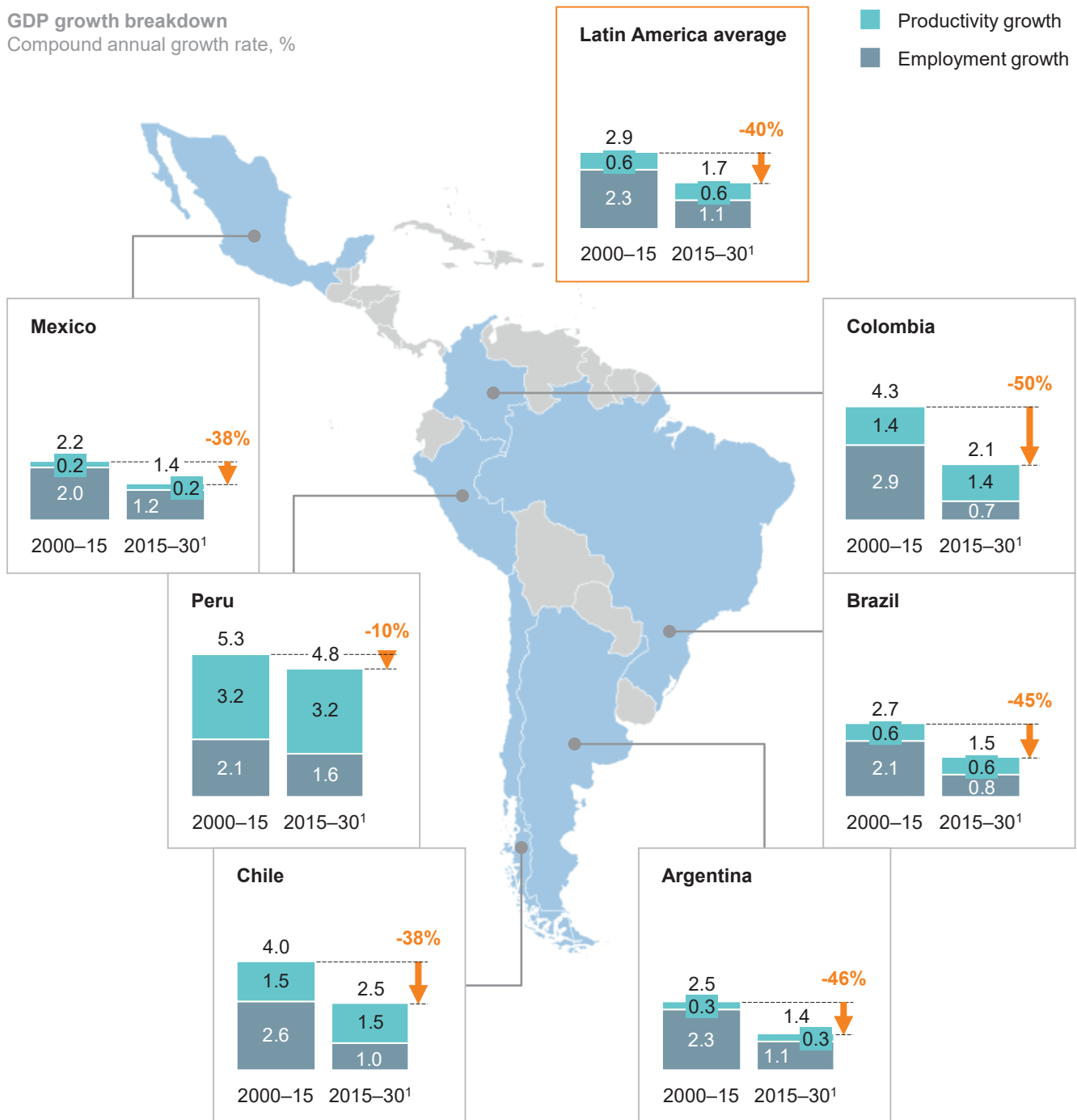
Between 2002 and 2011, the Commodity Price Index published by the International Monetary Fund jumped by 14 percent a year on the back of strong demand, only to fall by 12 percent a year between 2011 and 2016 on a combination of higher energy efficiency, which helped reduce demand, and technology, which enhanced supply—a supercycle (Exhibit 7).³ In the period to 2020, the index is expected to rise by around 3 percent a year. While Latin America will continue to benefit from its extensive resource assets, it now needs to put effort into raising resource productivity—using resources more efficiently—and investing resource revenue in longer-term economic development.

³ *Beyond the supercycle: How technology is reshaping resources*, McKinsey Global Institute and McKinsey’s Global Energy & Materials Practice, February 2017.

Exhibit 6

Without improved productivity growth, the rate of GDP growth could decline by 40 to 50 percent over the next 15 years in most economies

GDP growth breakdown
Compound annual growth rate, %



¹ With historical productivity growth rate remaining constant.
NOTE: Numbers may not sum due to rounding.

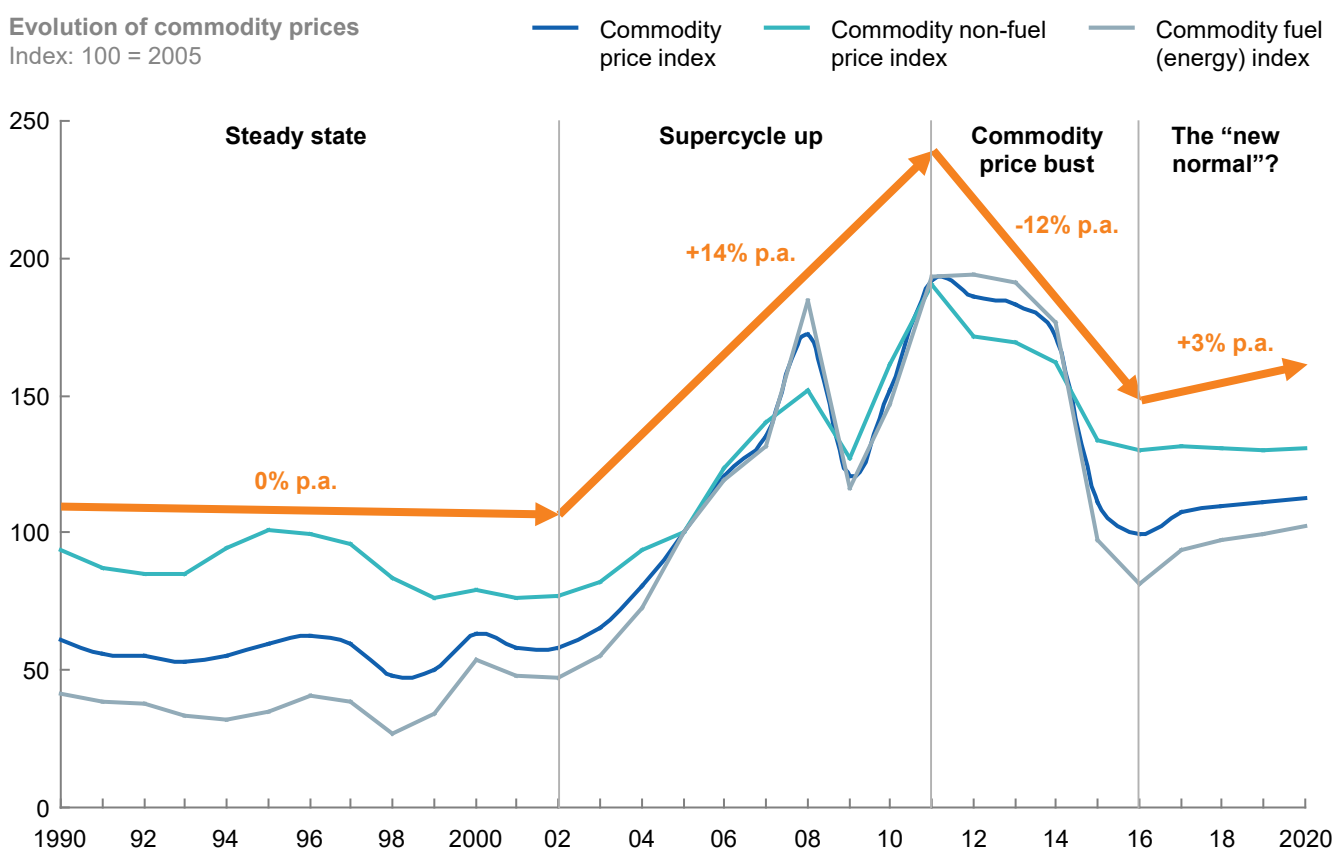
SOURCE: World Bank; UN World Population Prospects; Conference Board Total Economy Database; McKinsey Global Institute analysis

Exhibit 7

The end of the commodity supercycle undermines Latin America’s reliance on export-led growth

Evolution of commodity prices

Index: 100 = 2005



SOURCE: IMF; McKinsey Global Institute analysis

There is a risk that increased protectionism could undermine the trade component of growth

After decades of declining trade barriers, the outlook for trade after the 2008 financial crisis and 2009 global recession is uncertain. Rising protectionism could harm the region’s trade flows, with a negative knock-on effect on GDP growth. There is particular concern about trade with the United States, which is the biggest export market for Latin America; the destination for 45 percent of Latin American exports, and the source of 32 percent of its imports (Exhibit 8). It is of concern that the “action plan” released by Donald Trump before he was elected president listed as a top priority a plan to renegotiate or withdraw from the North American Free Trade Agreement, which opened up large opportunities for Mexican exporters. There is also a growing concern that tariffs may increase for other Latin American countries, which would be a significant contrast to the current situation. The United States levies some of the lowest average tariffs on Latin American exports of any importer. Take Brazil as one example. Average US tariffs on Brazilian goods were 1.6 percent in 2015, compared with 11.6 percent levied by the European Union and 2.5 percent by China.

Any rise in US tariffs has the potential to do significant harm to bilateral trade with the United States. The regional economies most dependent on bilateral trade with the United States are those of Central America, the Dominican Republic, and Mexico. Higher tariffs imposed by the United States would have a particularly marked effect on Latin American exports, which are mainly high-value-added items such as automobiles, auto parts, computers, and cellphones, in contrast with imports to Latin America, which are a mix of raw materials and high-value-added manufactured goods such as heavy machinery. Growing exports of higher-value goods and services is a priority for many nations seeking to transition from

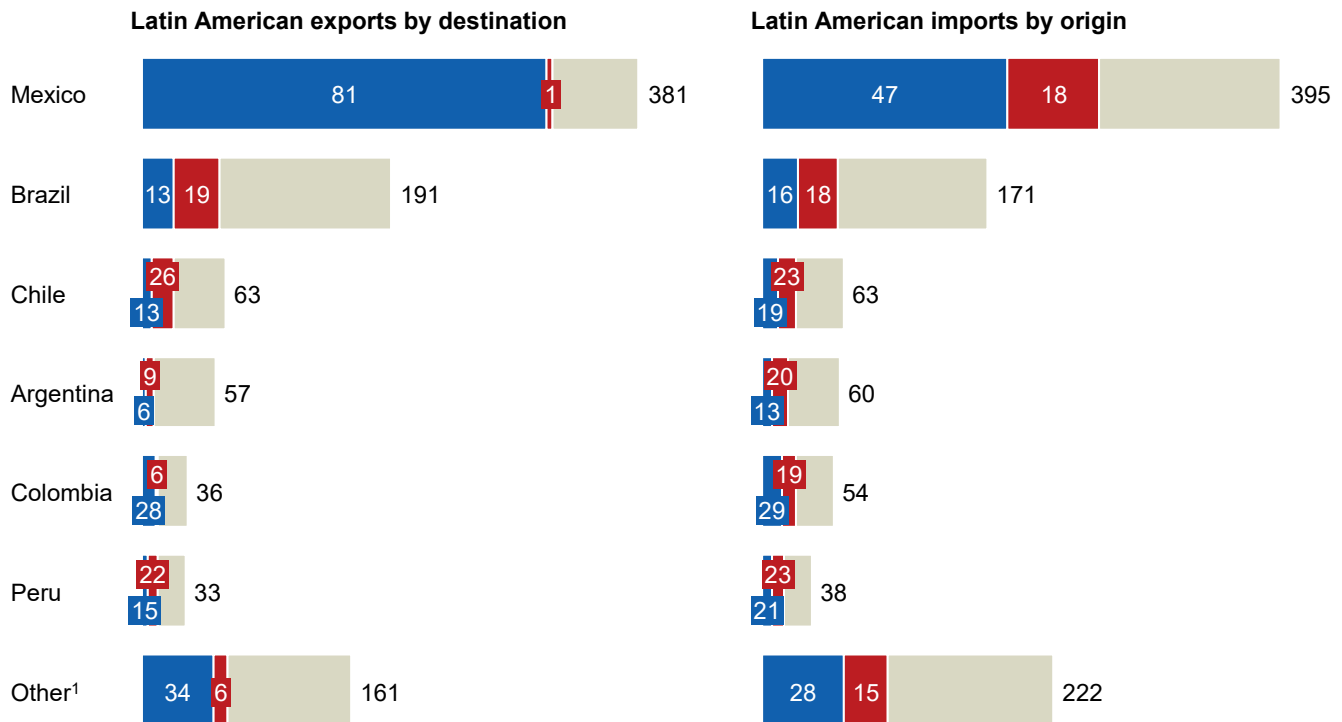
being largely raw-materials exporters to producers of more sophisticated goods and services.⁴ The export-import mix is quite different when we look at Latin America's trade with China. In this case, exports from Latin America are largely of raw materials such as agricultural products, oil, and mined resources, while imports from China are mostly higher-value-added electronics such as cellphones or computers.

Exhibit 8

Latin American economies—particularly those of Central America and Mexico—are highly dependent on trade with the United States

% of total; \$ billion, 2015

■ United States ■ China ■ Other



¹ Includes Central America and the Caribbean and other South American countries.
NOTE: Numbers may not sum due to rounding.

SOURCE: UN Comtrade; ITC Trade Map; McKinsey Global Institute analysis

There is also rising concern about costs associated with free trade in Western Europe, one example being German and French support for bolstering Europe's trade defense instruments in response to Chinese dumping in the steel sector.⁵ There is also evidence of rising protectionism in many emerging markets. Between 2011 and 2012, trade regulations within the G20 increased by 25 percent, largely in those emerging markets. In a report released in June 2016, the World Trade Organization said that between mid-October 2015 and mid-May 2016, G20 economies had introduced new protectionist trade measures at the quickest pace seen since the 2008 financial crisis—five a week.⁶ Latin America has opportunities to diversify its trade and strengthen connections within the region, but these will not be the main engines of growth.

⁴ Ricardo Hausmann et al., *The atlas of economic complexity: Mapping paths to prosperity*, MIT Press, January 17, 2014.

⁵ Cécile Barbière, *Germany and France team up to tackle Chinese dumping*, euroactiv.fr, May 19, 2016.

⁶ World Trade Organization, *Report on G20 trade measures*, June 21, 2016.

TO COUNTER THE THREAT TO GROWTH, LATIN AMERICA SHOULD CONSIDER FOUR PRIORITIES

To counter the threat to growth posed by those three disruptive forces, we see four imperatives that Latin American countries should prioritize:

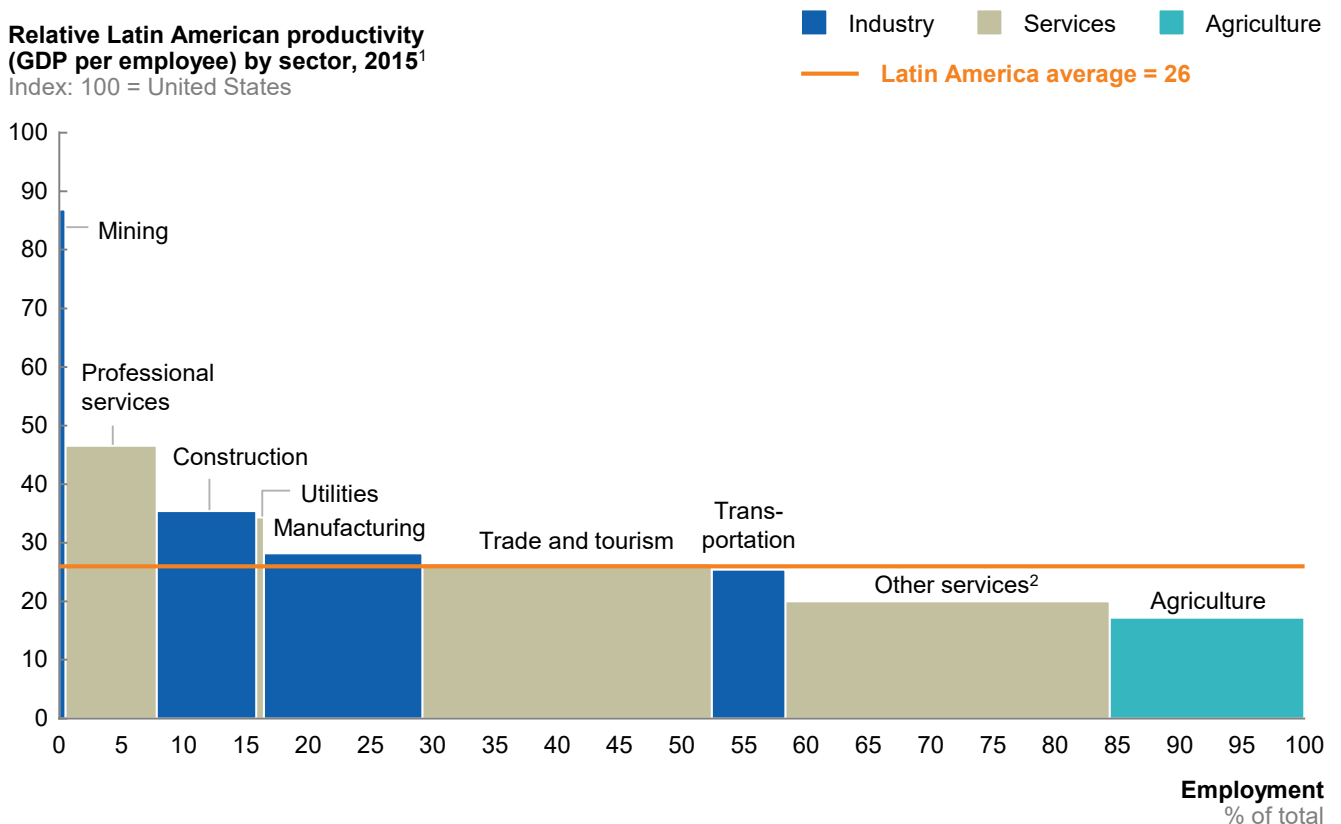
- Expand high-value-added activities across key value chains by removing obstacles to competitiveness
- Promote the efficient adoption of digital and automation technologies
- Address the pressures created by a declining labor force by strengthening the link between education and employment and narrowing gender gaps
- Invest in long-term drivers of productivity growth, with an emphasis on innovation

Expand high-value-added activities across key value chains by removing obstacles to competitiveness

Today, Latin America's most productive sectors (mining, professional services, and construction, expressed relative to productivity in the same sectors in the United States) are not large employers, and indeed account for less than one-fifth of total employment in the region. Mining is the most productive sector but has a very low share of employment. Agriculture, with the lowest relative productivity of any sector, is a large employer (Exhibit 9).

Exhibit 9

Latin America's most productive sectors relative to the United States account for less than 20 percent of total regional employment



1 Does not include public sector.

2 Includes education, health care, and personal services.

SOURCE: Economic Commission for Latin America and the Caribbean; World Bank; ILO; McKinsey Global Institute analysis

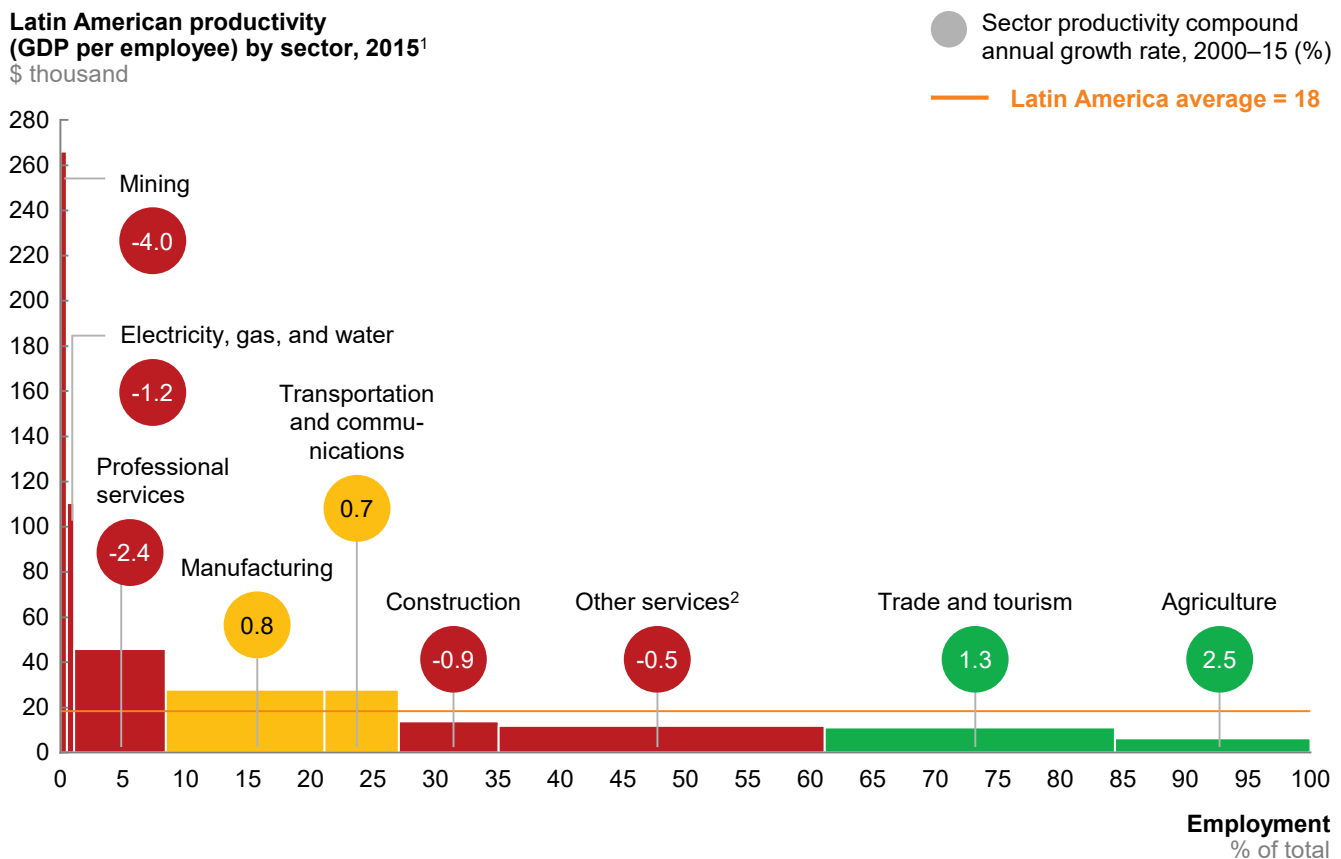
Overall, across sectors, productivity lags significantly behind that of counterparts in other countries and regions. Consider service sectors as one example. Latin American productivity stands at only 33 percent of the US level, and some sectors including trade, tourism, and transport lag even further behind. Service sectors in Latin America are predominantly in urban areas, but cities have not been effective in integrating incoming rural workers into high-value-added service-sector activities.

On average, Latin American workers produce 25 percent of what US workers produce. It is notable that even Latin America's most productive sector—mining—made a negative contribution (of 4.0 percent) to the region's productivity growth between 2000 and 2015. The story was similar with other more productive sectors, including utilities (electricity, water, and gas) with a 1.2 percent negative contribution, and professional services with a 2.4 percent negative contribution (Exhibit 10).

Exhibit 10

The region's most productive sectors all made a negative contribution to productivity growth over the past 15 years

Latin American productivity (GDP per employee) by sector, 2015¹
\$ thousand



¹ Does not include public sector.

² Includes education, health care, and personal services.

SOURCE: Economic Commission for Latin America and the Caribbean; World Bank; ILO; McKinsey Global Institute analysis

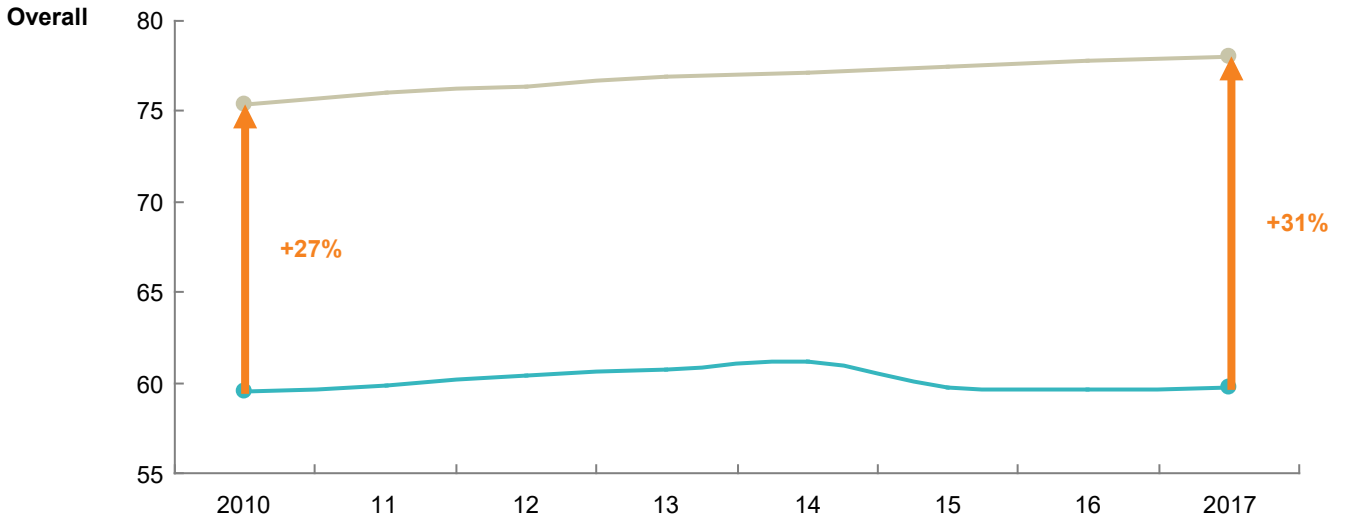
What has held back productivity in the region? Many factors contribute, but one key is the business environment, which has many shortcomings. On the World Bank's ease of doing business index, Latin America is falling further behind developed economies on every metric, from starting a business to getting credit and resolving insolvencies (Exhibit 11).

Exhibit 11

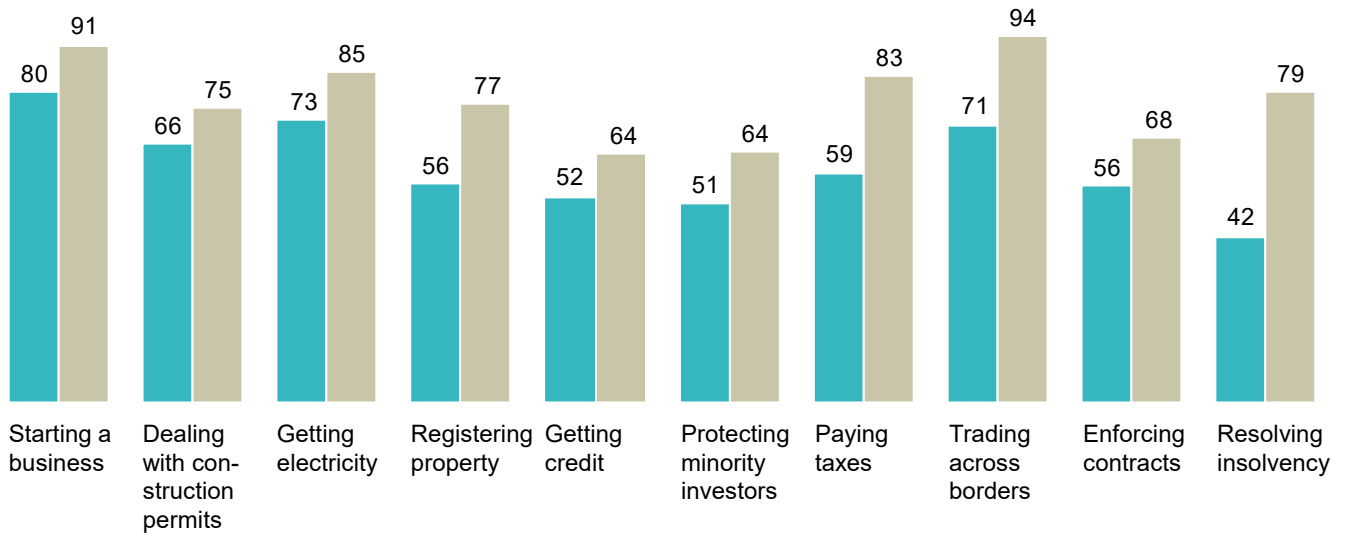
The gap between Latin America's World Bank ease of doing business ranking and those of developed economies has widened

Ease of doing business distance to frontier, 2010–17
Index: 100 = frontier

Latin America OECD



Per topic



SOURCE: World Bank; McKinsey Global Institute analysis

The combination of stringent regulation and weak enforcement is a significant hindrance to companies' performance across the region. In manufacturing, Latin America boasts some world-beating companies, including Mexico's Grupo Alfa, the world's leading manufacturer of high-tech aluminum engine heads and blocks for the car industry, and a producer of petrochemical products; Brazil's Embraer, the aircraft manufacturer; and Argentina's Tenaris, a leading supplier of specialized steel pipes. But many other companies struggle to compete locally and internationally because of restrictive labor rules and sector-specific regulations that persist across the region. High social taxes and stringent job security laws make firing redundant employees difficult and leave employers reluctant to hire, stoking the informal labor market.

Service sectors, too, suffer from poorly enforced regulations that encourage informality and therefore constrain productivity growth. Informality arises as many firms have strong incentives to avoid becoming formal because of high taxes, poor auditing capabilities, and low levels of sanctions. Inefficient informal players stay in business and prevent more productive, formal companies from gaining market share, constraining overall productivity. Extensive MGI research into informal sectors finds that the substantial cost advantage that informal companies gain by avoiding taxes and regulations more than offsets their low productivity and small scale, and distorts competition.⁷ Regulations are therefore needed that reduce the cost of formal employment to both employers and employees (for instance, lower labor taxes) and raise the risks of noncompliance (for example, better monitoring and prosecution of informal operations); such measures will help create more productive service jobs.

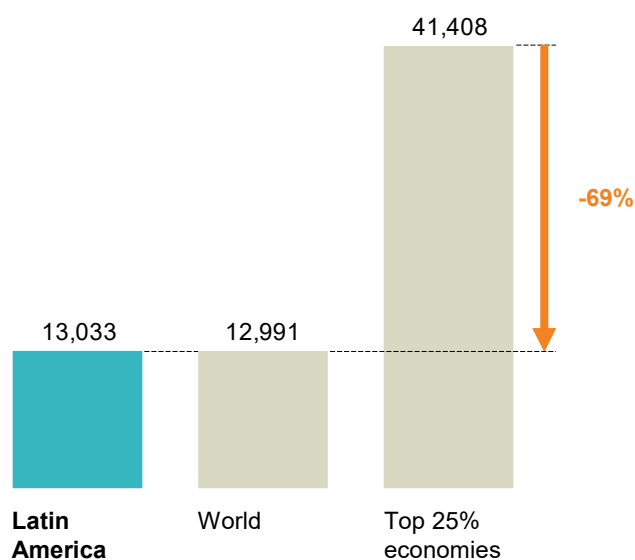
Latin America today misses a huge opportunity by not using its abundant natural resources efficiently. The region has 50 percent of the world's forested area, the largest land carbon sinks in the world; 12 percent of the globe's remaining arable land; nearly four times the internal renewable water resources per capita as the rest of the world; 27 percent of the world's biofuels production; 27 percent of proven global oil reserves; and rich veins of copper, iron, and silver. However, natural resources productivity (defined as value added relative to the value of reserves) is, we estimate, about 70 percent below that of its counterparts in the top 25 percent of the most productive economies in the world; its sophistication (a proxy for the complexity of the goods produced) is nearly 40 percent lower (Exhibit 12).

Exhibit 12

Latin America's natural resources value chain has significantly lower productivity and sophistication than those of leading economies

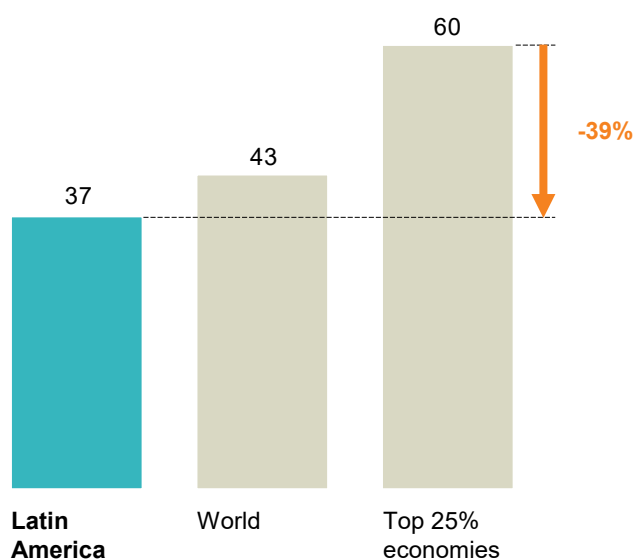
Natural resources productivity

Value added per \$ million of reserves



Natural resources sophistication¹

Index: 100 = maximum sophistication



¹ Measures the complexity of the export portfolio approach described by Hausmann et al.

SOURCE: Hausmann et al., *The product space and its consequences for economic growth*, American Physical Society, APS March Meeting, March 2007; World Bank; UN Comtrade; McKinsey Global Institute analysis

⁷ See, for instance, Diana Farrell, "The hidden dangers of the informal economy," *McKinsey Quarterly*, July 2004, and *A tale of two Mexicos: Growth and prosperity in a two-speed economy*, McKinsey Global Institute, March 2014.

Transforming the natural resources value chain requires shifting from an abundance mindset to a productivity mindset. Latin American countries need to make the most of their rich resources by extracting them, selling them, and using them more efficiently. For instance, a large share of the region's oil reserves is extracted and processed inefficiently by state-owned oil companies using aging plants and equipment. Energy efficiency among households and businesses is low, particularly in economies that subsidize energy. Agriculture sectors and food industries in the region consume double or triple the water volumes that their counterparts in the United States and China do.⁸ Rapid advances in automation technologies such as artificial intelligence, robotics, analytics, and the Internet of Things are beginning to transform the way resources are produced and consumed. Drones can conduct preventive maintenance on utility lines, saving money. Using data analytics to identify new copper fields can potentially raise productivity. Increased use of robotics in the oil and gas industry could automate many activities that currently carry high risk for humans. Recent MGI research found that adoption of such technologies globally could unlock cost savings of between \$900 billion and \$1.6 trillion in 2035—that's the equivalent of the GDP of Indonesia at the lower end of the range or Canada at the higher end.⁹

Promote the efficient adoption of digital and automation technologies

Technology has long been a powerful catalyst for higher productivity, from the first machines deployed during the Industrial Revolution to the invention of the telephone and the internet. Today's digital and automation technologies have the potential to utterly transform individual lives and the way that businesses operate and continue to power rising productivity. Latin America's economies need to engage fully in this latest wave of innovation. There is much to do. According to World Bank estimates, Latin America invests only around 0.8 percent of GDP in R&D activities, compared with an average of around 2.4 percent in OECD countries and China's 1.8 percent.¹⁰

Digital technologies are powerful drivers of company performance and economic growth. MGI research has found that digitization could boost the GDP of Mexico by between \$82 billion and \$144 billion a year by 2025 and the GDP of Brazil by \$125 billion to \$205 billion. In the United States, the GDP impact could be between \$1.6 trillion and \$2.2 trillion.¹¹ First, online talent platforms can make the labor market more efficient and transparent; their ability to accelerate job searches could lower the equilibrium unemployment rate, while better job matches could have a positive effect on productivity. New digital marketplaces for services are also creating flexible work opportunities that could boost labor-force participation. Prior MGI research has estimated that these effects could add \$500 billion to annual GDP by 2025.¹² Second, the Internet of Things can improve the utilization of fixed assets and add between \$250 billion and \$400 billion to annual US GDP by 2025.¹³ Third, companies that are investing in big data analytics and Internet of Things technologies could produce \$900 billion to \$1.3 trillion in annual GDP impact.¹⁴

The development of automation enabled by technologies including robotics and artificial intelligence brings the promise of higher productivity and increased efficiency, safety, and convenience. MGI research finds that automation could raise productivity growth on a global

⁸ *Building globally competitive cities: The key to Latin American growth*, McKinsey Global Institute, August 2011; *Fueling sustainable development: The energy productivity solution*, McKinsey Global Institute, October 2008.

⁹ *Beyond the supercycle: How technology is reshaping resources*, McKinsey Global Institute, February 2017.

¹⁰ World development indicators.

¹¹ *Digital America: A tale of the haves and have-mores*, McKinsey Global Institute, December 2015.

¹² *A labor market that works: Connecting talent with opportunity in the digital age*, McKinsey Global Institute, June 2015.

¹³ *The Internet of Things: Mapping the value beyond the hype*, McKinsey Global Institute, June 2015.

¹⁴ *Digital America: A tale of the haves and have-mores*, McKinsey Global Institute, December 2015. Also see *Big data: The next frontier for innovation, competition, and productivity*, McKinsey Global Institute, June 2011.

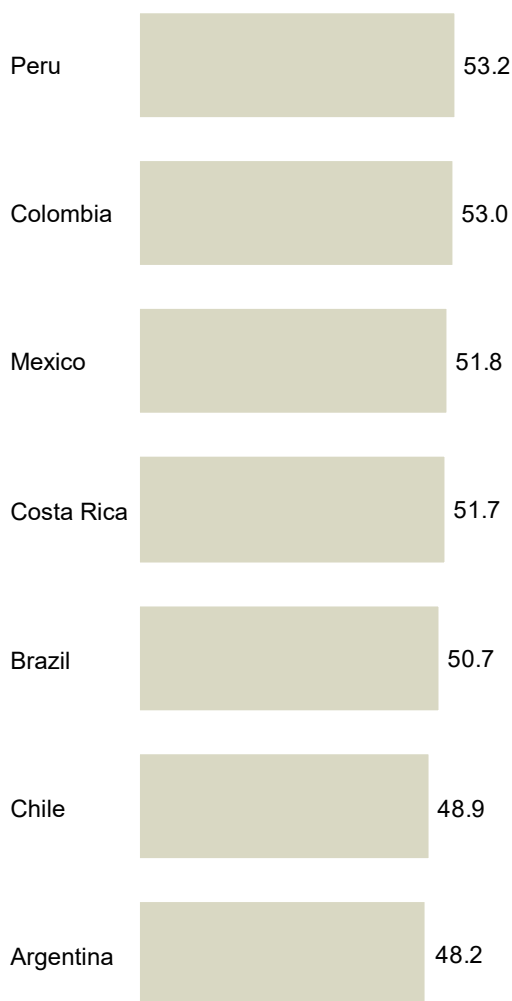
basis by as much as 1.4 percent annually.¹⁵ Although less than 5 percent of occupations can be automated entirely using today’s technologies, almost all occupations will change. In Latin America, we estimate the automation potential to be near 50 percent, which means half of total full-time-equivalent time spent at work is potentially automatable (Exhibit 13). In just seven countries, this potential would be associated with more than 76.4 million full-time-equivalent workers earning more than \$970 billion in wages.¹⁶

Exhibit 13

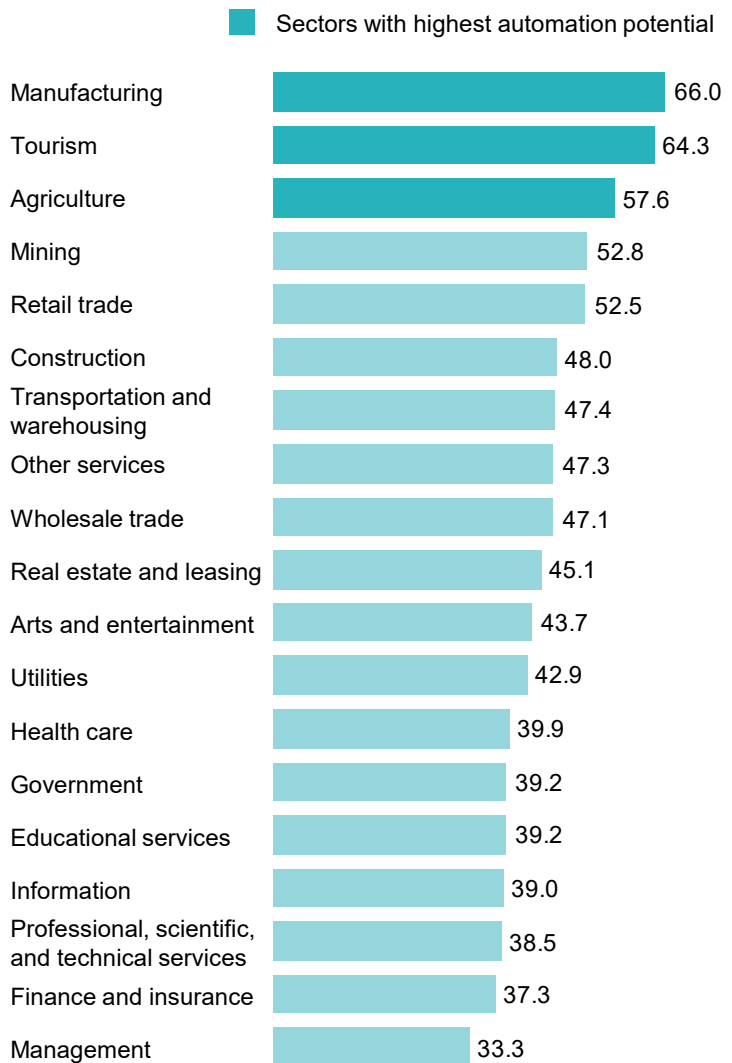
Close to half of workers’ time can be automated in Latin America—with even higher shares in manufacturing, tourism, and agriculture

% of total full-time-equivalent time, 2016

FTEs technically feasible for automation in Latin America



FTEs technically feasible for automation, by sector



SOURCE: McKinsey Global Institute Automation Database; McKinsey Global Institute analysis

The opportunity of automation is huge, but this wave of innovation also raises difficult questions about the broader impact of automation on jobs, skills, wages, and the nature of work itself. There will be more economic dislocation. As digital technologies automate many of the tasks that humans are paid to do, the day-to-day nature of work will change

¹⁵ *A future that works: Automation, employment, and productivity*, McKinsey Global Institute, January 2017.

¹⁶ The seven countries are Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, and Peru.

in a majority of occupations. As companies redefine many roles and business processes, workers of all skill levels will be affected. Historical job displacement rates could accelerate over the next decade. The scale of shifts in the labor force is likely to be of a similar order of magnitude to technology-enabled shifts out of agriculture in developed countries during the 20th century. These historical shifts did not result in long-term mass unemployment because they were accompanied by the creation of new types of work. The imperative for all countries is to step up education and training to prepare people for those new roles, and to put in place policies to mitigate the impact on individuals during the transition to a more automated world.

Address the pressures created by a declining labor force by strengthening the link between education and employment and narrowing gender gaps

Given declining fertility and slower population growth, it is vital that Latin American countries do everything possible to bolster their labor pools. Two broad areas need to be addressed: raising skills and raising numbers—the latter by removing barriers to women who want to work entering the labor market.

Develop skills by strengthening the link between education and employment

Latin American businesses face considerable skills gaps. In a McKinsey survey, between 40 and 50 percent of Latin American employers cited a lack of skills as the main reason for entry-level vacancies.¹⁷ According to the World Economic Forum, despite a sharp increase in labor-force participation over the past 20 years, companies in the region report significant numbers of unfilled vacancies. Thirty-seven percent of companies surveyed said that finding workers with the necessary training was one of the main obstacles that they faced. This was higher than the global average. In Brazil, 68 percent of managers said that they had difficulties filling positions, followed by Argentina at 41 percent, Costa Rica at 40 percent, and Mexico and Panama at 38 percent. As in other regions of the world, the main reasons cited included lack of technical skills, an inadequate number of applicants, and lack of experience.¹⁸

Latin America's education system needs to improve markedly to help address this situation. The quality and value of education overall lag behind those of developed nations—at the primary, secondary, and tertiary levels and in the provision of lifelong learning. Latin America's average score was lower than that of high-income OECD countries on a series of relevant parameters in the World Economic Forum's Global Competitiveness Report, with the largest gap in the quality of math and science.¹⁹ These deficiencies let down Latin America's youth. Mexico has one of the highest shares in the OECD of young people not in education, employment, or training. McKinsey's 2012 study on education to employment found that in the Latin American countries surveyed, between 50 and 60 percent of young people were working in jobs unrelated to their field of study.²⁰ Another study finds that 50 percent of 15-year-olds in Latin America who took the Programme for International Student Assessment (PISA) did not meet basic competence on math, science, and reading, compared with the OECD average of 21 percent. Including 15-year-olds not evaluated because they either were not participating in the education system or were still in elementary school, the figures are 66 percent lacking basic competence in Latin America compared with 29 percent in OECD countries. The situation varies hugely within the region.

¹⁷ Mona Mourshed, Diana Farrell, and Dominic Barton, *Education to employment: Designing a system that works*, McKinsey Center for Government, 2012.

¹⁸ *Bridging the skills and innovation gap to boost productivity in Latin America*, The Competitiveness Lab: A World Economic Forum Initiative, January 2015.

¹⁹ *Global competitiveness report*, World Economic Forum, 2014.

²⁰ Mona Mourshed, Diana Farrell, and Dominic Barton, *Education to employment: Designing a system that works*, McKinsey Center for Government, 2012.

For instance, in Chile the figure is 48 percent (still far above the OECD average), but in the Dominican Republic, it is a shockingly high 90 percent.²¹

Latin American countries need to strengthen the quality of education and access to it, and they must focus much more acutely on ensuring that education and training systems produce people with the skills that businesses need—and will equip them for a world where automation is much more widespread.²² McKinsey & Company is involved in a number of initiatives in the region. For example, McKinsey is a founding funder, with USAID and the Walmart Foundation, of Generation, an initiative that equips young people with the skills needed in the workforce.²³ In our experience, education to employment should be regarded as a continuous journey with three core aspects in place to be successful: (1) improved data collection and dissemination; (2) sector-wide collaboration; and (3) the creation of an education-to-employment “system integrator” that coordinates, catalyzes, and monitors activity across sectors and stakeholders.

Promote gender equity in labor markets

The entry of more women into the labor force would be of significant benefit to countries with aging populations that face pressure on their labor pools and therefore, potentially, on their GDP growth. MGI global research on the “power of parity” found that, globally, an additional \$12 trillion of GDP could be created if all countries were to match the progress in narrowing gender gaps of the best-performing countries in their region (a best-in-region scenario). If women were to participate in the workforce identically to men (a full-potential scenario), the potential would be \$28 trillion in additional GDP.²⁴

MGI finds that the GDP potential in Latin America is the second highest in the world (after India). In a best-in-region scenario, the region could create an additional \$1.1 trillion of GDP by 2025, 14 percent above what can be achieved at current rates of progress toward gender parity. In a full-potential scenario, the GDP uplift could be \$2.6 trillion or an additional 34 percent of GDP. The highest potential relative to GDP would be in the countries with the largest gender disparities in the region, namely the Dominican Republic, Guatemala, and Mexico (Exhibit 14).

The evidence shows that women need to be equal partners in society for them to be equal participants in work, and therefore action is needed to narrow the gender gap in both. On gender inequality in work, Latin America scores as extremely unequal on the perceived wage gap for similar work and on the amount of unpaid care work performed by women as opposed to men—about three times as much. Latin American women’s workforce participation rate is less than 70 percent of men’s, lower than the 80 percent or more in China, sub-Saharan Africa, North America, and Western Europe. On social indicators, the region has “extremely high” gender inequality on political representation—there is roughly one woman for every three men in Latin American legislatures—and on legal protection and violence against women.

²¹ *Latin America and the Caribbean in PISA*, Inter-American Development Bank and CIMA, 2016.

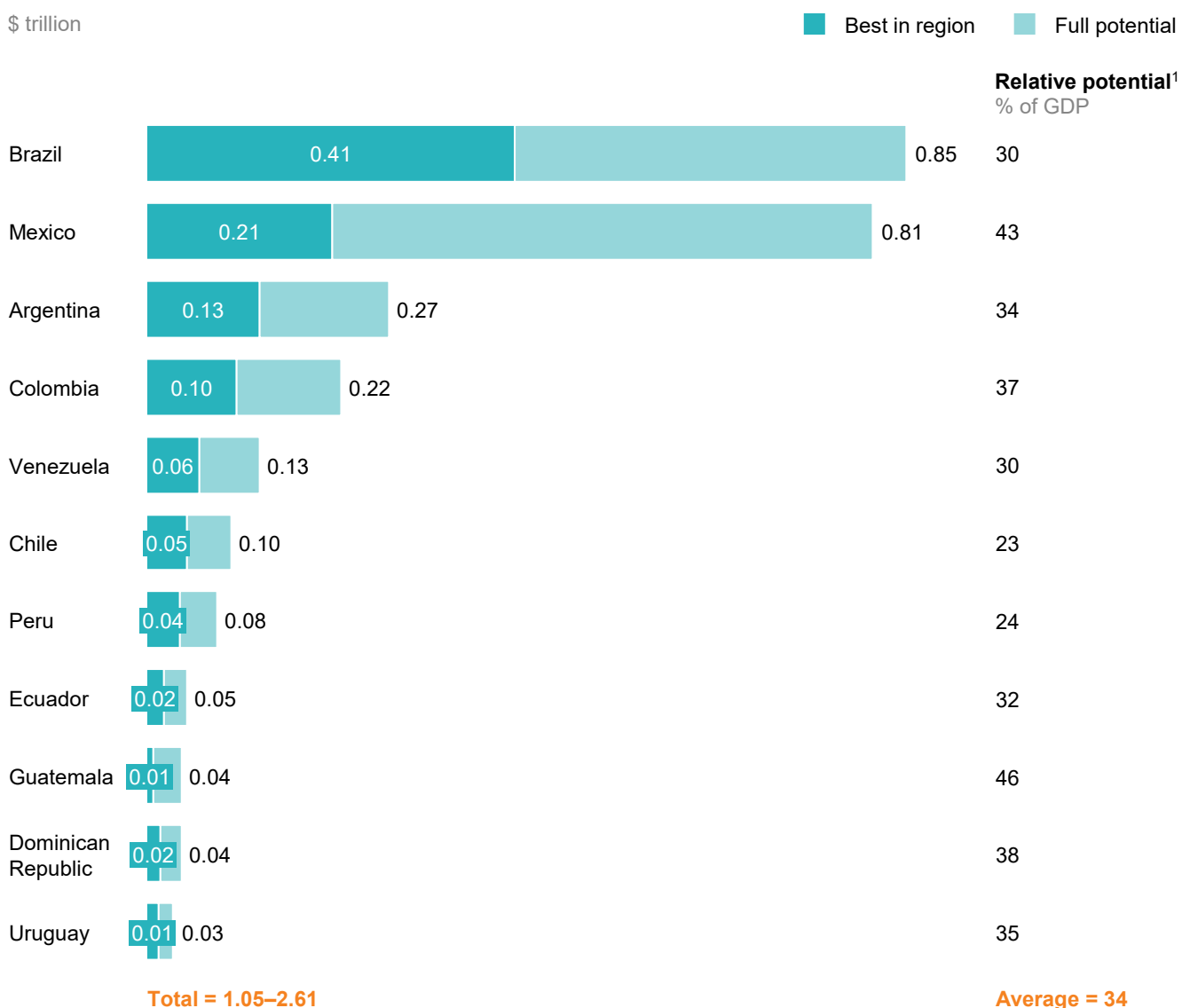
²² McKinsey & Company and the McKinsey Global Institute have published extensively on the issue of skills and the changing labor market. See, for example, Mona Mourshed, Diana Farrell, and Dominic Barton, *Education to employment: Designing a system that works*, McKinsey Center for Government, 2012; *A labor market that works: Connecting talent with opportunity in the digital age*, McKinsey Global Institute, June 2015; and Martha Laboissiere and Mona Mourshed, *Closing the skills gap: Creating workforce-development programs that work for everyone*, McKinsey Public Sector Practice, February 2017.

²³ The program, which operates in five countries including Mexico, serves more than 10,000 students in 31 cities. Students who have taken part report two to six times the income after Generation than before; 83 percent of participants are employed within 90 days of completing the program; and 86 percent remain in the same job three months after placement. Eighty-eight percent of the more than 1,000 employers taking part say that Generation graduates perform better than average.

²⁴ *The power of parity: How advancing women’s inequality can add \$12 trillion to global growth*, McKinsey Global Institute, September 2015.

Exhibit 14

Addressing gender gaps could create \$1.1 trillion to \$2.6 trillion of additional GDP by 2025



¹ In a full-potential scenario.
NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Global Institute analysis

Action is particularly important in four areas—education, unmet need for family planning, maternal mortality, and financial inclusion are strongly correlated with gender equality in work. MGI estimates that Latin America needs to spend an additional 1.5 to 2.0 percent of GDP a year on these four areas, with spending on education from early childhood to university accounting for the lion’s share.²⁵ However, the GDP benefit could be between six and eight times the initial outlay. Some countries are making faster progress toward gender equality than others. For example, International Labour Organization data suggest that Chile is closing the gender gap in labor-force participation, and Ecuador is pulling women out of agriculture faster than other countries.

²⁵ *Delivering the power of parity: Toward a more gender-equal society*, McKinsey Global Institute, May 2016.

Invest in long-term drivers of productivity growth

The challenge to growth exists across Latin America. Although targeted interventions to boost sector productivity can have a very powerful effect in the short and medium term, an inclusive and sustainable growth strategy requires strengthening the business environment as well as investment in the capital and infrastructure that enable productivity growth and competitiveness.

Strengthen macroeconomic fundamentals

Overall, macroeconomic fundamentals in the region have been strong, with low inflation and low volatility in exchange rates and interest rates. Public debt levels have fallen slightly over the past 15 years. The two exceptions to this generally positive macroeconomic context are Argentina and Venezuela (Exhibit 15). Both economies have displayed macroeconomic fragility. Argentina has recently undertaken concerted efforts to strengthen stability, but the results have yet to unfold. Venezuela's economy appears to be deteriorating. Inflation is extremely high—475 percent in 2016, the IMF estimates—and the country has three official exchange rates. Across the region, although public debt levels are down a little, fiscal vulnerability is rising, particularly in economies with large resource sectors, because the commodity-price boom has ended and revenue from resources has fallen sharply. In Brazil, for instance, public debt increased by more than 10 percentage points during 2015, and the IMF expects it to continue rising by three to four percentage points a year over the next five years.²⁶ Continuing to strengthen macroeconomic fundamentals is key to improving competition, trade, and investment in the region.

Address infrastructure gaps

Over the past 15 years, Latin America on average has invested some \$106 billion a year on the transportation, power, water, and telecom systems on which businesses and populations depend. However, this investment falls short of what is needed, depriving citizens of essential services and constraining growth. Middle-income nations in Latin America could add two percentage points to annual growth rates if their infrastructure was comparable with that of middle-income nations such as Turkey and Bulgaria, MGI has found.²⁷ More recent MGI research found that Latin America's spending on infrastructure as a share of GDP—2.4 percent between 1992 and 2013—was the lowest of any region in the world. In comparison, for instance, China spent 8.6 percent of GDP during this period, India 4.9 percent, Africa 3.1 percent, and the United States and Western Europe 2.5 percent each. We estimate that Latin America needs to invest \$214 billion a year (mostly on energy and roads) in the period to 2030 purely to keep pace with projected GDP, which does not include improving the region's infrastructure. Overall between 2016 and 2030, Latin America needs to spend around \$7 trillion on economic infrastructure, compared with the \$5 trillion spent between 2000 and 2015.²⁸

In order to raise spending on infrastructure, governments need to look at ways to increase funding streams through user fees, property-value capture, and selling assets and recycling the proceeds to fund new infrastructure. Although they are an important part of the funding mix, public-private partnerships account for only about 5 to 10 percent of total investment. Given rising fiscal vulnerability in the region, more investment will need to come from the private sector, and that will require macroeconomic stability and regulatory certainty. Beyond ensuring that financing is available, the region needs to ensure that all spending is as productive as possible. MGI's 2013 research found that replicating best practices in the selection and delivery of infrastructure projects, and making more use of existing infrastructure, could deliver the same amount of infrastructure for 40 percent less cost—or,

²⁶ *World Economic Outlook*, IMF, October 2016.

²⁷ *Infrastructure productivity: How to save \$1 trillion a year*, McKinsey Global Institute and the McKinsey Infrastructure Practice, January 2013.

²⁸ *Bridging global infrastructure gaps*, McKinsey Global Institute and McKinsey's Capital Projects & Infrastructure Practice, June 2016.

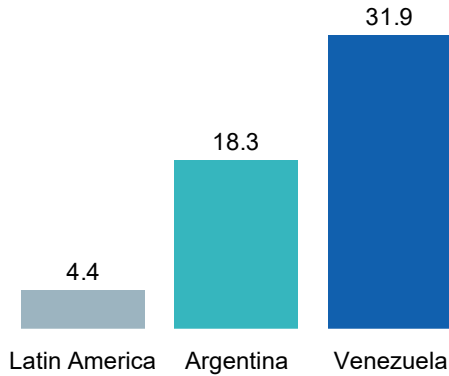
put another way, deliver a 60 percent boost to productivity. This step up in productivity is feasible simply through the application of established and proven practices across the globe.²⁹

Exhibit 15

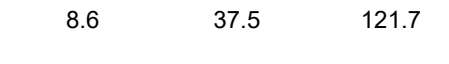
With the exception of Argentina and Venezuela, Latin America has strong macroeconomic fundamentals, but fiscal vulnerability is rising

Inflation, 2000–15
%

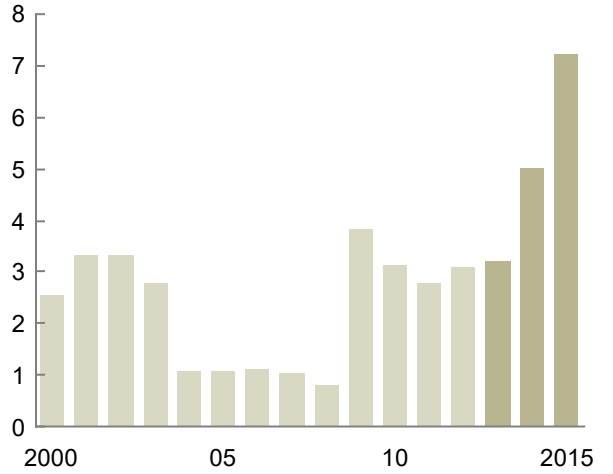
Average annual inflation



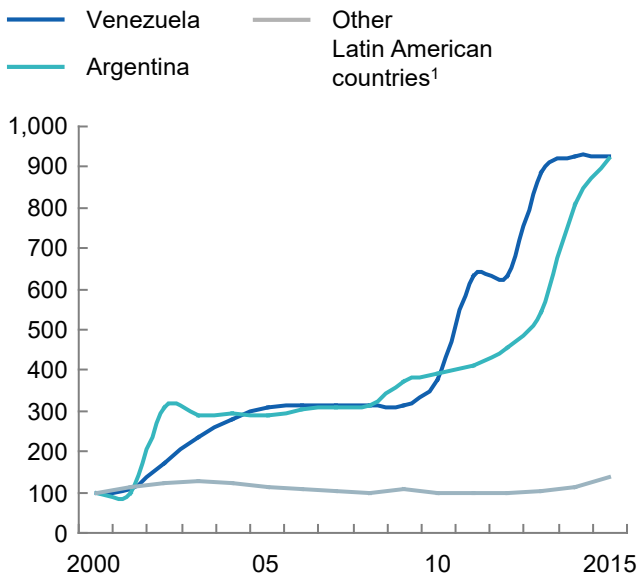
Maximum annual inflation



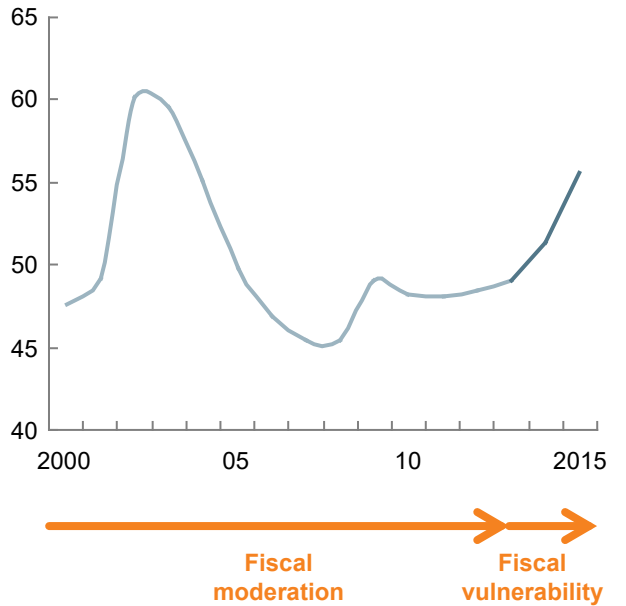
Fiscal deficit
% of GDP



Exchange rate, local currency unit per \$
Index: 100 = 2000



Public debt
% of GDP



1 Average for Brazil, Chile, Colombia, Mexico, and Peru.

SOURCE: IMF; World Bank; IPC-CqP database; McKinsey Global Institute analysis

²⁹ *Infrastructure productivity: How to save \$1 trillion a year*, McKinsey Global Institute and the McKinsey Infrastructure Practice, January 2013.

Expand access to capital

Difficulties in accessing credit and its high cost are major hurdles for small and medium-sized businesses seeking to expand and create new jobs. A fundamental issue in the region is lack of “financial depth,” measured as total regional debt and equity outstanding divided by regional GDP. On this measure, Latin America has one of the lowest financial depths of any region in the world—only Central and Eastern Europe and the Commonwealth of Independent States, and Africa have less financial depth.³⁰ That contributes to the fact that 48 percent of Latin Americans do not have access to financial services.

Digital finance is a powerful way to overcome financial exclusion. MGI research in 2016 found that digital financial services could boost GDP by 5.5 percent and 5.0 percent in Brazil and Mexico, respectively, by 2025. Moreover, 46 million more Mexicans and 35 million Brazilians could obtain access to financial services through digital means. Governments can use digital finance to reduce “leakage” through corruption on both expenditure and revenue, saving an estimated \$2 billion a year in Mexico and \$1 billion a year in Brazil.

Governments, banks, and corporations all have a part to play in ensuring that individuals and businesses obtain the financial services, including credit, that they need to make the most of their economic potential. Digital finance is one powerful tool, but there are others. Governments can reform financial regulation to encourage creditors to lend by, for instance, improving the process for recovering collateral and pushing for improvements in credit reporting. Banks can foster longer-term relationships with their clients and can modernize their credit-granting processes, using data analytics and new forms of digital information to gauge creditworthiness. Large companies with access to low-cost capital can help to finance smaller partners by offering financing for equipment or technology purchases.





There is enormous theoretical potential to bolster growth even in the face of challenging demographics, but potential needs to be translated into tangible impact felt by families and businesses across the region. We do not underestimate the extent of the changes that will be needed to achieve a positive impact on productivity and growth. Governments, businesses, and even individuals all need to play their part. Governments need to design and effectively enforce public policies and regulations that eliminate obstacles for growth and enable innovation and inclusion. They can also play a useful role in bringing together key stakeholders to coordinate demand and supply in labor and innovation markets. Although a number of corruption scandals have undermined the reputation of business in Latin America in recent years, a growth agenda needs the committed input of the private sector with a determination to raise productivity, expand operations, and innovate. Businesses should promote greater collaboration within the region to strengthen local value chains, work with governments to define national and regional economic-development strategies, and, broadly, take a longer-term view of growth policies and initiatives. Business leaders can also help to create networking opportunities and act as spokespeople for the private sector, expressing their concerns and interests in conversations with external stakeholders. Individuals have responsibilities, too. Students need to inform themselves about the needs of the labor market and be assiduous in taking courses that are likely to lead to employment. Workers need to be proactive in acquiring new skills.

Latin America’s growth imperative is pressing but the challenges wide-ranging and often difficult. However, broad, concerted leadership from society can shape a new agenda that will enable the region to weather the demographic storm, transform productivity, and bolster growth for the long term.

³⁰ *Digital finance for all: Powering inclusive growth in emerging economies*, McKinsey Global Institute, September 2016.



McKinsey Global Institute
April 2017
Copyright © McKinsey & Company
www.mckinsey.com/mgi

 @McKinsey_MGI
 McKinseyGlobalInstitute