

POLICY NOTE ON LATIN AMERICA

NAVIGATING UNCERTAINTY:
STRATEGIES FOR
INNOVATION
AND GROWTH



INVESTMENT
ENERGY RISK MANAGEMENT
INFRASTRUCTURE INNOVATION
POPULATION GROWTH MIDDLE CLASS
GREEN GROWTH COMMODITIES
SKILLS REGULATIONS TRADE
PRODUCTIVITY
INDUSTRIALISATION
CREDIT

Navigating Uncertainty: Strategies for Innovation and Growth

With an improved economic outlook, Latin America has an opportunity to lay the foundation for innovation-driven growth. This note provides insights and suggests policy recommendations from the private sector on ways to enhance productivity and innovation in Latin America. It gives an overview of regional economic and business trends, highlights public policy efforts to upgrade skills and enhance innovation, and offers private sector insights on opportunities and bottlenecks in areas such as regional integration, digital economy and skills. The analysis builds on discussions at the OECD Emerging Markets Network (EMnet) meetings on doing business in Latin America, held on 9 June 2017 in Paris, France, and in Buenos Aires, Argentina on 14 October 2017, as well as on the analysis of the Latin American Economic Outlook 2017, in addition to desk research and bilateral discussions with EMnet members.

Key messages include:

- Despite facing several internal and external challenges, Latin America's economic prospects are finally improving. The region must leverage the positive outlook to implement adequate policies that will support innovation and allow for better adoption of digital technologies.
- Trade will play an essential role in increasing productivity and underpinning growth. In order to benefit from the rebound in global trade, Latin America will need to enhance regional integration, diversify its economies and build new partnerships.
- Significant skills shortages persist in the region in an era when digitalisation is changing labour market needs. Public initiatives to promote ICT skills and improved co-operation between the public sector, private sector and academic actors are needed to reduce skills gaps and increase digital literacy.
- Corruption can come at a high price to investment in Latin America. Fighting corruption by enhancing the rule of law and strengthening its enforcement is essential to improve business confidence and attract foreign investors.
- Access to funding for innovative projects is still lacking in Latin America. The deepening of financial markets and the mobilisation of public funds can kick-start innovative projects and stimulate growth.
- Coverage gaps for high-speed mobile and internet connections remain and inhibit innovation. Latin America needs better digital infrastructure, particularly in remote areas. Policies can play an important role in providing a solid legal and regulatory framework for investments in infrastructure projects as well as assuring social inclusiveness.

OECD DEVELOPMENT CENTRE

The Development Centre of the Organisation for Economic Co-operation and Development (OECD) was established in 1962 and comprises 27 member countries of the OECD and 25 non-OECD countries. The European Union also takes part in the work of the Centre.

The Development Centre occupies a unique place within the OECD and in the international community. It provides a platform where developing and emerging economies interact on an equal footing with OECD members to promote knowledge sharing and peer learning on sustainable and inclusive development. The Centre combines multidisciplinary analysis with policy dialogue activities to help governments formulate innovative policy solutions to the global challenges of development. Hence, the Centre plays a key role in the OECD's engagement efforts with non-member countries.

To increase the impact and legitimacy of its work, the Centre adopts an inclusive approach and engages with a variety of governmental and non-governmental stakeholders. It works closely with experts and institutions from its member countries, has established partnerships with key international and regional organisations and hosts networks of private-sector enterprises, think tanks and foundations working for development. The results of its work are discussed in experts' meetings as well as in policy dialogues and high-level meetings, and are published in a range of high-quality publications and papers for the research and policy communities.

For an overview of the Centre's activities, please see www.oecd.org/dev.

OECD EMERGING MARKETS NETWORK

Emerging Markets Network (EMnet) is an OECD-sponsored initiative dedicated to the private sector. Managed by the OECD Development Centre, the Network fosters dialogue and analysis on emerging economies and their impact on global economic, social and environmental issues.

EMnet gathers top executives (chief executive officers, vice presidents, managing directors, chief financial officers, heads of strategy, chief economists) of multinational companies from diverse sectors, willing to engage in debates with high-level policy makers, including heads of state and ministers, and OECD experts.

EMnet events are closed to the public and media and operate under Chatham House rule to encourage open and dynamic discussions on doing business in Africa, Asia and Latin America.

To learn more about EMnet, please see <http://www.oecd.org/dev/oecdemnet.htm>.

ACKNOWLEDGEMENTS

This Policy Note was written under the guidance of Bathylle Missika, Head of the Partnerships and Networks Unit and Senior Counsellor to the Director (a.i), and Lorenzo Pavone, Deputy Head of the Partnerships and Networks Unit and EMnet Co-ordinator (OECD Development Centre). The report was prepared by the EMnet team (Maria Sobron Bernal, Kate Eklin, Miguel Castro and Thibault Vasse).

The analysis is based on discussions at the EMnet meeting held on 9 June 2017 at the French Ministry of Economy and Finance in Paris and an EMnet meeting on 14 November 2017 at the Argentine Ministry of Treasury in Buenos Aires. Particular thanks go to Marcelo Scaglione and Enrica Campogiani at Argentina's Ministry of Treasury for co-organising the November meeting.

Insights from Sebastian Nieto Parra of the OECD Development Centre's Latin America and Caribbean Unit helped to refine this note. The report also benefited from comments and inputs from Lourdes Casanova and Anne Miroux (Emerging Markets Institute, Johnson School of Business at Cornell University), Natalia Moreno-Rigollot and Marta Salafranca (Telefónica), Mauricio Rosillo Rojas (Bancolombia) and Oscar Espinosa (Ferreycorp).

Finally, special thanks go to Grace Dunphy, Sonja Märki, (OECD Development Centre) for their valuable assistance throughout the drafting and publishing process.

The opinions expressed and arguments employed here are the sole responsibility of the authors and do not necessarily reflect the official views of the member countries of the OECD or its Development Centre, or of EMnet members.

© OECD 2018

This document, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

ABBREVIATIONS AND ACRONYMS

4G	Fourth generation
CAF	Development Bank of Latin America
CAFTA-DR	Dominican Republic-Central American Free Trade Agreement
CITES	Centre for Technological, Business and Social Innovation
ECLAC	Economic Commission for Latin America and the Caribbean
FDI	Foreign direct investment
GDP	Gross domestic product
GERD	Gross domestic expenditure on research and development
GVC	Global value chains
ICT	Information and communications technology
IDB	Inter-American Development Bank
IMF	International Monetary Fund
IMCO	Mexican Institute for Competitiveness
ITU	International Telecommunications Union
MinTIC	Ministry of Information Technologies and Communications
NAFTA	North American Free Trade Agreement
OECD	Organisation for Economic Co-operation and Development
PISA	Programme for International Student Assessment
PPP	Purchasing power parity
R&D	Research and development
SME	Small and medium-sized enterprise
TFP	Total factor productivity
UN	United Nations
UNCTAD	United Nations Conference on Trade And Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
VET	Vocational education and training
WEF	World Economic Forum

Table of contents

Latin America’s economic and business overview	6
Return to economic growth although internal and external challenges remain.....	6
Global trade is rebounding but Latin America needs increased integration and product complexity...	6
Foreign direct investment continues to decline but is diversifying beyond extractives.....	7
Downside risks could threaten Latin America’s recovery.....	9
An upturn in protectionism or global uncertainty could hurt the region	9
Economic downturn could hurt progress on poverty reduction and weaken the middle class	9
Low productivity and high levels of informality leaves populations at risk and weakens growth.....	9
Weaknesses in the social fabric of Latin American societies could threaten economic progress..	10
Innovation and skills for long-term growth	10
Private and public investment in innovation is low in the region compared to OECD countries	10
Skills shortages in the labour market persist due to low quality education	11
Digitalisation is changing the labour market and increasing the demand for new skills.....	12
Public policies for innovation and skills.....	13
Public initiatives to promote ICT skills in the region are expanding	13
Training programmes for working adults are enhancing IT exports and certifying skills	14
Private sector insights	14
Creating a supportive business environment.....	14
Leveraging the improvement of global trade prospects for the region	16
Encouraging innovation in Latin America	18
Enhancing competition policies for innovative technologies	18
Enhancing skills.....	21
Conclusion	22

LATIN AMERICA'S ECONOMIC AND BUSINESS OVERVIEW

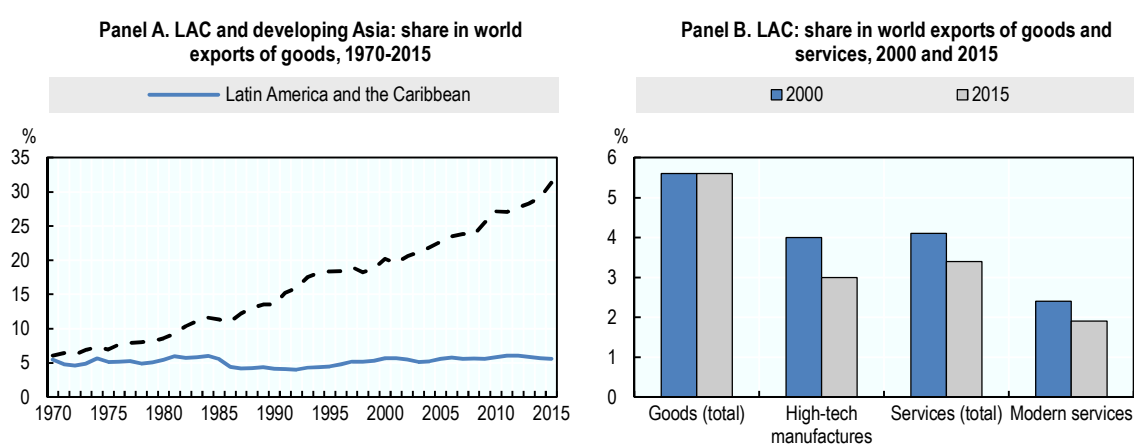
Return to economic growth although internal and external challenges remain

Latin America is finally coming out of a prolonged economic slowdown. After two consecutive years of recession, the region is expected to recover in 2017 with GDP growth around 1-1.5% and 2-2.5% in 2018 (OECD/ECLAC/CAF, 2018). The economic outlook highlights the diversity in economic performance across the region. Commodity exporters in South America are expected to do better, driven by the rise in commodity prices and reduced inflation. Brazil and Argentina will exit their recessions, but economic performance will remain moderate. The Andean region will continue to adjust to lower, yet improved commodity prices. The Caribbean region is expected to recover slightly after contracting in 2016 (OECD/ECLAC/CAF, 2018). Slowdowns in large infrastructure investments could also threaten growth, particularly in Argentina, Colombia, Panama and Peru, where a number of projects linked to corruption scandals have recently experienced turmoil. For example, in Peru, a large infrastructure project to build a gas pipeline in the southern part of the country was put on hold. The resulting paralysis, which put 15 000 people out of work, forced the government to put the project out to tender again (Mitchell, 2017). In terms of external pressure, trade policy uncertainty in the United States can negatively impact the economies of Mexico and Central America, in particular.

Global trade is rebounding but Latin America needs increased integration and product complexity

Globally, world trade is recovering but has not yet reached past levels. This improvement can be attributed to economic recovery in Europe, an improvement in the electronics trade in Asia as well as a transition to greater global investment demand, which draws more heavily on imports (OECD, 2017d). The pace of new trade restrictions in G20 countries is also slowing (OECD/WTO/UNCTAD, 2017). Yet, Latin America is not showing signs of taking full advantage of these improved global trends. The region's share of world trade has remained stagnant with an average of 5.4% from 1970-2015, whereas other regions, such as Asia, have seen their share of world exports rise steadily (Figure 1.1).

Figure 1.1. Latin American exports as share in world exports



Note: Developing Asia excludes Western and Central Asia.

Source: OECD/ECLAC/CAF (2018 forthcoming), Panel A based on data from UNCTAD, UNCTADSTAT database. Panel B based on COMTRADE database (goods) and WTO (services).

The composition of exports has not changed significantly, as larger economies such as Argentina and Brazil remain reliant on natural resources. Changes in prices have had strong effects on Latin America's export performance in the past, primarily due to the important role that commodities play in the region's exports (OECD/ECLAC/CAF, 2018). The high commodity prices in recent years led many countries to rely too heavily on primary products while neglecting more value-added industries (OECD/ECLAC/CAF, 2018). The challenge now is to promote economic diversification, enhance production transformation and broaden participation in global value chains.

At present, Latin America's participation in global value chains (GVCs) remains limited. Only small fractions of domestic value added originating from Latin American countries go into the exports of other countries. Similarly, little foreign value is added to the gross exports of the countries in the region. The region has made limited progress in this regard since the 1990s, as the region's participation in world exports' value added remains negligible. For example, Latin America was at the origin of 4% of the value added in the world's exports in 2014, up from 3% in 1995, based on data from seven countries (Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, Peru) (OECD/ECLAC/CAF, 2018). Furthermore, Latin America's use of imported intermediate products in its exports is limited. In 2014, 13% of the exported value in Argentina, Brazil, Chile, Colombia, Costa Rica and Peru originated in other countries, a low figure compared to 19% for NAFTA countries and around 30% for the European Union, China and Southeast Asia (OECD/ECLAC/CAF, 2018). Within the region, these linkages are dominated by a few countries. Notably, Brazil and Mexico each represent one-third of the region's foreign value added (OECD/ECLAC/CAF, 2018).

Expanding trade within the region is crucial. Only 16% of Latin America's exports go to other countries in the region. The region's size, geography and poor transport infrastructure hinder expansion of trade (OECD/ECLAC/CAF, 2018). Trade also remains highly concentrated in a few large economies. Argentina, Brazil, Chile, Mexico and Venezuela have represented more than 70% of total exports and imports in the past 15 years (OECD/ECLAC/CAF, 2018).

The region has made progress in opening economies to trade, as countries throughout Latin America are liberalising tariff measures. Members of the G20 (Argentina, Brazil, Mexico) in particular, are taking active steps to facilitate international trade. However, restrictions from non-tariff barriers remain. These barriers include measures such as standards and technical regulations that inadvertently restrict imports. The most common non-tariff barriers in Latin America are related to local content requirements, non-export subsidies, tariff-rate quotas and import-licensing procedures (OECD/ECLAC/CAF, 2018).

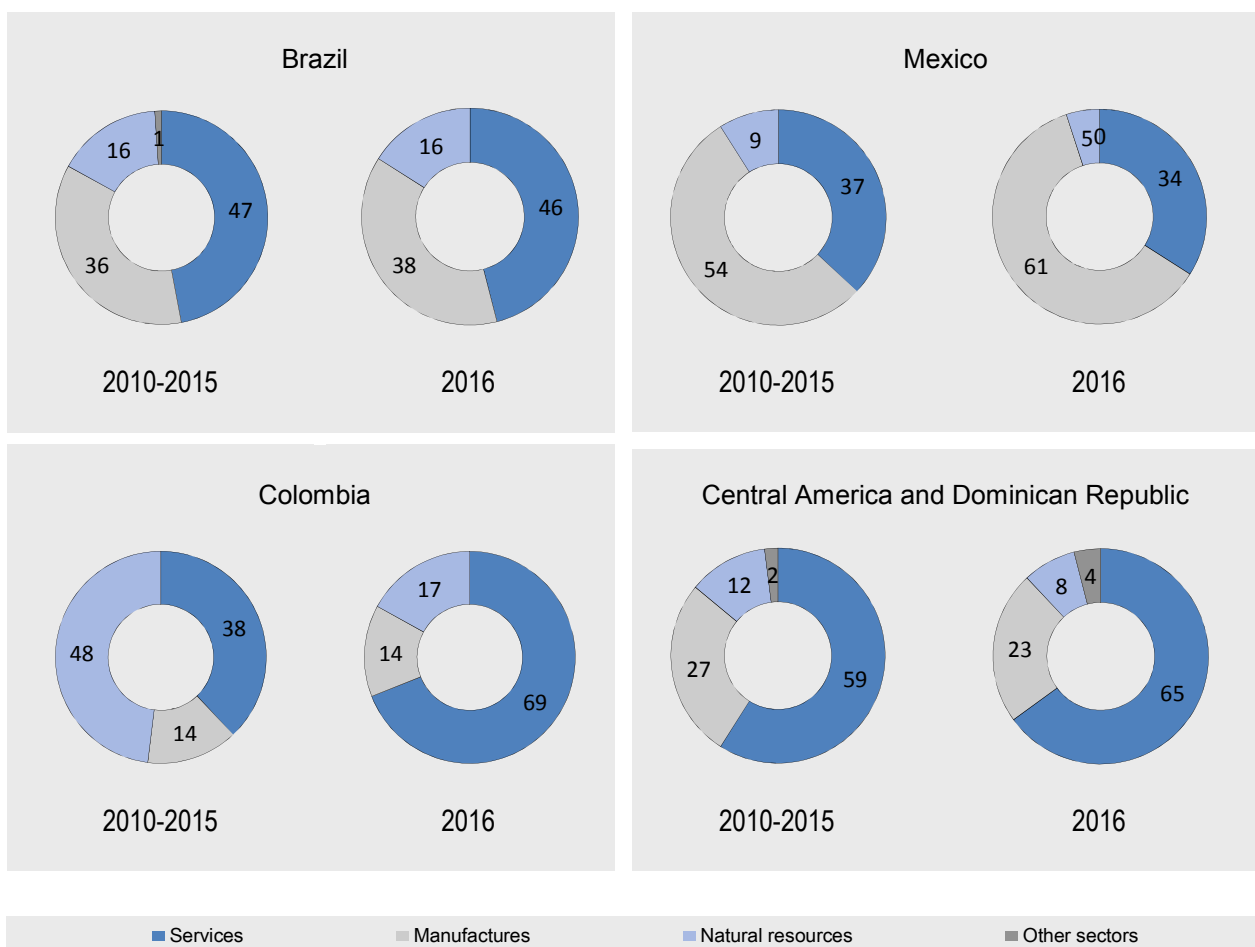
Foreign direct investment continues to decline but is diversifying beyond extractives

Foreign direct investment (FDI) into Latin America has declined between 8 and 14% in 2016 depending on the different estimates from the Economic Commission for Latin America and the Caribbean (ECLAC) and the United Nations Conference on Trade and Development (UNCTAD). According to ECLAC, FDI inflows declined by 7.8% in 2016 to USD 167.2 billion and have decreased by 16.9% since 2011 (ECLAC, 2017a). UNCTAD's *World Investment Report 2017* estimated that FDI to the region recorded a loss of 14.1% in 2016 to reach a total of USD 142.1 billion (UNCTAD, 2017). In Latin America, Brazil is the main recipient of FDI (47%), followed by Mexico (19%), Colombia (8%) and Chile (7%) (ECLAC, 2017a).

FDI performance in the region has been varied, with FDI flows into South America decreasing overall, while increases were seen in Central America and the Caribbean. In South America, FDI increased in Brazil, Colombia and Paraguay in 2016, but declined elsewhere (ECLAC, 2017a). Argentina (-64.0%), Ecuador (-43.7%) and Chile (-40.3%) showed the largest declines in FDI (ECLAC, 2017a). Central America's share of regional FDI rose to 7.2% in 2016, increasing from 3.7% in 2010. Panama's share of FDI in Central America reached a new high of 44% (USD 5.2 billion) and the Dominican Republic lead the Caribbean with its FDI flows increasing by 9% to USD 2.4 billion (ECLAC, 2017a).

Investment in extractive industries continued to decline and represented 13% of investments in 2016. Investment in manufacturing (40%) and the services sector (47%) have increased and are mostly concentrated in renewable energy, telecommunications and the automobile industry (Figure 1.2) (ECLAC, 2017a). Overall, FDI flows to the region in 2017 are estimated to decline another 10% to USD 130 billion, weighed down by decreased investment in greenfield projects, particularly in the extractive sector, as well as uncertainty regarding the United States' trade and economic policies (UNCTAD, 2017).

Figure 1.2. **Distribution of FDI by Sector for selected sub-regions and countries, 2010-16**
(%)



Source: Economic Commission for Latin America and the Caribbean (ECLAC) (2017a), Foreign Direct Investment in Latin America and the Caribbean, 2017 (LC/PUB.2017/18-P), Santiago, <https://www.cepal.org/en/publications/type/foreign-direct-investment-latin-america-and-caribbean>.

Investment in Latin America is dominated by investors based in the United States and Europe (ECLAC, 2017a). However, China continues to expand its role as a major player in the region, having invested over USD 110 billion since 2003, and more than USD 60 billion in Brazil alone (Avendano, Melguizo and Miner, 2017). Although the USA and the Netherlands remain Brazil's top providers of FDI, China has poured investments into Brazil in recent years, reaching a seven-year high of USD 20.9 billion in 2017, a trend that is expected to continue growing in 2018 (Spring, 2017). Furthermore, Chinese investments have moved beyond extractive industries to include investments in services, finance, electricity, renewable energies and ICT (Avendano, Melguizo and Miner, 2017).

Outward investment from Latin American firms declined by 47% in 2016 (USD 25.6 billion). Brazil, Chile and Mexico dominate outward investment and accounted for over 80% of external flows from 2010-2016. Colombia has also become an active outward investor in recent years and was the third largest investor in the region behind Brazil and Chile in 2016 (ECLAC, 2017a). The largest deal of 2016 was by the Mexican firm Grupo Carso that acquired an additional 25.7% of the share capital of the Spanish construction company, Fomento de Construcciones y Contratas S.A., for USD 6.9 billion (Reuters, 2016). Colombian and Mexican firms also made notable acquisitions in the US construction sector, betting on opportunities for future infrastructure investment (ECLAC, 2017a).

Downside risks could threaten Latin America's recovery

Beyond this modest economic recovery and an improved outlook for commodity prices and global growth, Latin America still faces internal structural challenges as well as external risks that could threaten progress. Many elections across the region in 2018 risk creating policy uncertainty related to the implementation of planned reforms (IMF, 2017). External shocks due to global economic events or rising protectionism could also reduce growth. Countries must also manage internal risks related to rising vulnerable populations, widespread informal employment, stagnant productivity and increasing citizen discontent with government performance.

An upturn in protectionism or global uncertainty could hurt the region

Latin America is highly vulnerable to external shocks and to changes in US policies. Uncertainties around the new US administration and its trade policy decisions are being watched by Latin American governments closely. New trade barriers could gravely affect countries that are particularly dependent on exports to the United States such as Mexico and the Central American economies (OECD/ECLAC/CAF, 2018).

A rejection of globalisation in advanced economies could further limit Latin America's growth prospects. Financial markets, for example, are closely monitoring the evolution of US fiscal policy choices as well as European elections and Brexit milestones. While these events have had an impact on financial markets, the effects have not threatened broader economic prospects in developed and emerging economies (OECD/ECLAC/CAF, 2018).

At the same time, China's economic slowdown has stabilised, moderating risks for the region. Economic performance in China has major implications for trade in some Latin American countries. This is particularly true in South America which has strong trade linkages with China (OECD/ECLAC/CAF, 2018).

Economic downturn could hurt progress on poverty reduction and weaken the middle class

Latin America's middle class now exceeds the number of individuals living in poverty, for the first time in decades, yet much of the population remains vulnerable to falling back into poverty. In 2015, around 34.5% of the population were part of the "consolidated middle class" (living on USD 10-50 per day, expressed at constant 2005 prices in purchasing power-parity), representing an important increase from 21% in 2001. At the same time however, a vulnerable class has grown from 34% in 2000 to around 40% of the population in 2015. These vulnerable individuals are living on USD 4-10 per day and could easily fall back into poverty if faced with a negative economic shock (OECD/ECLAC/CAF, 2018).

Low productivity and high levels of informality leaves populations at risk and weakens growth

The low levels of productivity in Latin America continue to constrain growth. Labour productivity, measured as the GDP produced by an hour of labour, has been in decline over the past decade when compared to advanced economies. In 2016, the average productivity in Latin America relative to the average productivity in the United States was lower than it was 60 years ago. Analysis shows that this low labour productivity can explain 70% of the difference in GDP per capita between Latin American countries and the top half of OECD countries (OECD/ECLAC/CAF, 2018).

In addition, high informality rates increase the population's vulnerability to loss of income or unemployment and reduce productivity. Around 55% of the employed population is working in the informal sector (OECD/ECLAC/CAF, 2018). Across the region, unemployment is also expected to rise in 2017 to 9.4% in urban areas, increasing from 8.9% in 2016, reflecting an increase of 7 million unemployed people since 2014 (15.8 million to 22.8 million) (ECLAC 2017b).

Weaknesses in the social fabric of Latin American societies could threaten economic progress

Latin Americans are increasingly losing trust in their governments and institutions. Notably, the latest *Latin American Economic Outlook 2018* highlights that 75% of Latin Americans showed little or no confidence in national governments in 2017, an increase from around 55% in 2010. Individuals across income spectrums are dissatisfied with public services. For instance, high-income individuals, while contributing to public services, increasingly opt-out and use private health and education options. Vulnerable individuals cannot afford to use private options but remain, nonetheless, dissatisfied with the public services made available to them (OECD/ECLAC/CAF, 2018).

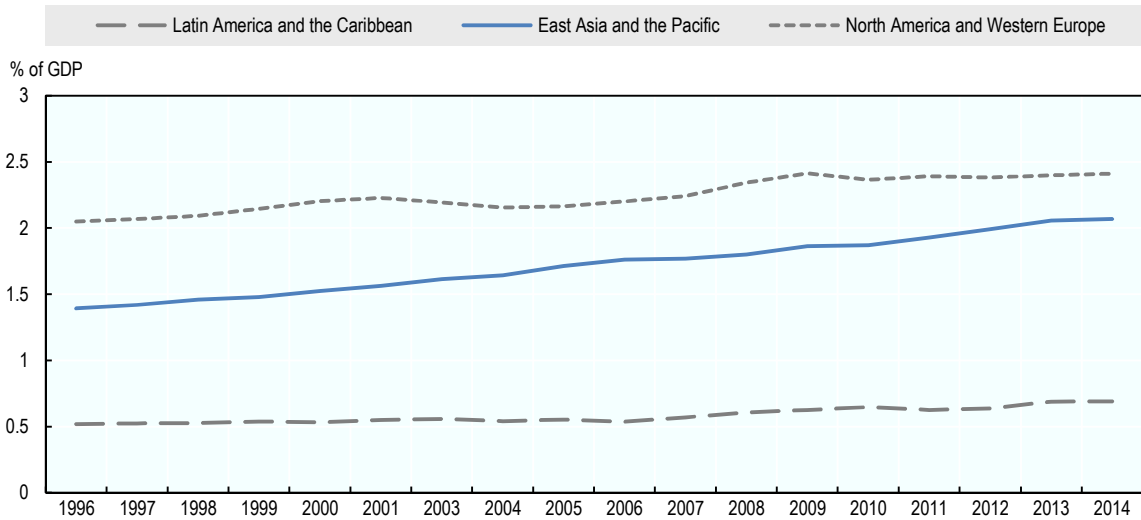
These challenges and risks require a strong response from both the private and the public sector to boost productivity and business confidence. Investing in skills and greater innovation, as well as stronger governance both at the corporate and public levels could foster confidence, stimulate long-term growth and set the stage for greater trade and investment opportunities.

INNOVATION AND SKILLS FOR LONG-TERM GROWTH

Private and public investment in innovation is low in the region compared to OECD countries

To boost long-term growth, the region must increase knowledge-intensive production and innovation (OECD/ECLAC/CAF, 2016). Taking investment in Research & Development (R&D) as a measure for innovation levels, Latin American economies perform well below other regions such as Europe or East Asia and the Pacific. Brazil is the only country in the region that invests more than 1% of GDP on R&D with about half coming from the private sector (OECD/IDB, 2016a). Other Latin American economies invest much less. For example, Chile, Colombia and Peru all spend less than 0.5% of GDP on R&D (UNESCO, 2018). Moreover, between 1996 and 2014, countries in the region have on average spent slightly more than 0.5% of their annual GDP on R&D. Conversely, North America and Western Europe spent 2.2% of their GDP on an annual basis during that same period, while countries in East Asia and the Pacific have spent annually 1.7% of their GDP (Figure 1.3).

Figure 1.3. **Gross domestic expenditure on R&D (GERD) as a percentage of GDP, 1996-2014**



Source: United Nations Educational, Scientific and Cultural Organization (UNESCO) (2018), Gross Domestic Expenditure on R&D (GERD) database, <http://data.uis.unesco.org/Index.aspx?queryid=74> (accessed 30 August 2017).

The percentage of R&D expenditure financed by the domestic private sector is also relatively low compared to other sources of financing (government, non-profit organisations, universities and foreign investment). On the positive side, the regional average of private sector investment in R&D grew from 17% in 2013 to 25% in 2015 (UNESCO, 2018).

The Global Innovation Index evaluates a variety of innovation indicators and provides additional insights on Latin America's relative innovation performance among the 127 economies included in its ranking (Cornell University, INSEAD, and WIPO, 2017). In Latin America, Chile leads the regional performance (46th), followed by Costa Rica (53rd), Mexico (58th), Panama (63rd) and Colombia (65th). No Latin American economies were identified in 2017 as "innovation achievers", meaning that none of the countries outperformed in innovation relative to their respective level of development (Cornell University, INSEAD, and WIPO, 2017).

Through a study of Brazil's performance, Monteiro and Casanova (2016) found that although investments in innovation were made, be it on research projects or tangible assets such as ICT infrastructure, the level of innovation outputs (such as high value added knowledge and creative products) did not increase accordingly. In fact, when compared to the level of investments in innovation, Brazil's gap in output decreased from 2011 to 2016 (Monteiro and Casanova, 2016). Clearer identification of priorities and stable policies, improved data collection and monitoring, and greater incentives for public and private investment could all help to reduce the innovation output gap in Brazil (Monteiro and Casanova, 2016).

Skills shortages in the labour market persist due to low quality education

Latin America is among the regions that show the greatest gap between private sector demand for skills and the available pool (OECD/ECLAC/CAF, 2016). In this context, improving education is critical to achieve long-term growth. In this regard, Latin America must make substantial progress to improve educational outcomes, as low quality primary and secondary education constitutes an obstacle for the development of specific skills in demand by the labour market. Ten Latin American countries participate in the OECD Programme for International Student Assessment (PISA) that assesses the skills and knowledge of 15-year-old students in reading, mathematics and science (OECD, 2016c). All participating countries in Latin America had relatively more low achieving students than the OECD average of 13%. The Dominican Republic and

Peru both ranked last in the region with the share of low achievers representing 70.7 and 46.7% of 15 year-old students respectively. The share of top performers in reading, mathematics or science was also well below the OECD average of 15.3%. Chile scored highest in the region with 3.3% of top performers while, the Dominican Republic, where only 0.1% of students were ranked as high performers in one of the three subject areas, ranked last in the region (OECD, 2016c).

Digitalisation is changing the labour market and increasing the demand for new skills

In an increasingly digitalised and automated world, new technologies are changing the labour market. Advances in technology are not only shifting the nature of tasks employees perform but are also transforming certain job categories. Certain tasks are increasingly being completed by machines, resulting in employment destruction. Nevertheless, numerous jobs will be created in occupation categories such as computer science and mathematics, architecture and engineering, sales and education (WEF, 2016). Automation is affecting certain sectors more markedly. For instance, employment in the next five years may decline for: office and administrative roles, manufacturing and production activities, as well as in the construction sector, according to a study of 15 global focus countries by the World Economic Forum (WEF, 2016). Estimates indicate that by 2030, 3.4 million jobs could be lost in Latin America due to automation, mainly in the construction and the manufacturing sectors (OECD/ECLAC/CAF, 2016).

Figure 1.4. Net employment outlook by job category for focus countries, 2015-2020
(employees, by thousands)*



Note: Focus countries include 15 economies from OECD countries (e.g. Australia, Mexico, United States) and emerging countries (e.g. Brazil, India, South Africa) to cover approximately 65% of the global workforce.

Source: WEF (2016), "The future of jobs: Employment, skills and workforce strategy for the fourth industrial revolution", Global Challenge Insight Report, World Economic Forum, Geneva, <http://reports.weforum.org/future-of-jobs-2016/>.

It should be noted that automation may primarily have adverse effects for low-skilled workers in developing countries, where the phenomenon could impact two-thirds of all job categories (World Bank, 2016). The pace of this replacement might take longer in lower income countries because the use of ICTs (information and communication technologies) at work is still relatively low and low wages make investments in technology less attractive (World Bank, 2016).

Automation will modify the core skills sought by employers as mastering ICT skills will become crucial. Yet, 43% of adults in 28 OECD countries surveyed had little or no ICT skills, according to the 2015 OECD Survey of Adult Skills (PIAAC). More specifically in Latin America, in Chile, for example, large gaps persist in terms of ICT skills, as 78% of adults surveyed had limited or no ICT skills (OECD, 2016a). Developing soft skills, however, remains essential as employees will require competencies that technology cannot replicate such as socioemotional as well as advanced cognitive skills. As the nature of jobs will shift, people will perform activities that are complementary to the work of machines (McKinsey Global Institute, 2017). Creativity, emotional intelligence, and cognitive flexibility are going to be part of the 10 most in-demand skills by 2020, according to ManpowerGroup (ManpowerGroup, 2017).

PUBLIC POLICIES FOR INNOVATION AND SKILLS

Countries in the region have developed policies to support innovation at firm and industry levels. Colombia and Argentina have, for example, created funds in order to support companies with projects in science, technology and other innovative areas. In Colombia, the department of Science, Technology and Innovation (COLCIENCIAS) provides credit lines and matching grants for firms to engage in business innovation projects or pursue collaboration with universities. An evaluation of the impact of these programmes found that they increased labour productivity at a firm level by 15% between 1995 and 2007. The beneficiary companies became not only more efficient, but also increased their market share. The programme also helped increase product offerings as beneficiary companies introduced on average 12% more new products into their markets between 1995-2007 (Crespi, Maffioli, Meléndez, 2011).

Argentina's National Agency for Promotion of Science and Technology has a technological fund (FONTAR) to finance private sector technological innovation that is making a positive impact on innovation outcomes for both direct and indirect beneficiaries. The fund supports the development of innovative products, the development of new prototypes, and modernisation of technological equipment, creation of cluster-level industries, recruitment of staff with advanced technological skills and the creation of a technological council to stimulate innovation in small and medium-sized enterprises (SMEs). These programmes can support innovation spill-overs to other firms over time. Evidence suggests that financial incentives to companies also spilled over to firms that were not direct beneficiaries of the FONTAR support (Castillo et al., 2014). By estimating knowledge spill-over through the mobility of workers, firms that were indirect beneficiaries of the programme increased their employment rate by 15%, while direct beneficiaries increased it by 17% (Castillo et al, 2014).

Public initiatives to promote ICT skills in the region are expanding

Many countries in the region have taken initiatives to help citizens better interact with digital technologies and enable them to use such technologies both at work and in everyday life. National policies throughout the region are aimed at developing the population's ICT skills in order to better equip students as well as the working population to face labour market requirements. For example, Peru approved the National Digital Literacy Plan in 2012 which aims to train every citizen in the use of computers and mobile devices (OECD/IDB, 2016b). Uruguay has a television programme (Ceiba Channel) that is broadcast on local networks that focuses on the use of computers (OECD/IDB, 2016b). In Costa Rica, public universities offer ICT training courses open to the public with targeted programmes for the elderly and disabled (OECD/IDB, 2016b).

Countries are also promoting initiatives to acquire more advanced ICT knowledge. Peru and Brazil, for example, have focused on scholarships for research in sciences and technology fields. Brazil launched its *Brasil Mais TI* initiative, operating in three essential areas of vocational training: knowledge, skills and opportunities. The programme offers free online courses to students and professionals in order to develop their ICT proficiency as well as job postings to help respond to the needs of the labour market (OECD/IDB, 2016b). Peru funds scholarships (*Beca 18*, *Beca Presidente de la Republica*) for undergraduate and graduate students in ICT-related fields in national universities or in Spain or Colombia (PRONABEC, 2017). Businesses discussed how investment in more advanced ICT skills will become increasingly relevant as a driver of higher level of productivity and growth.

Training programmes for working adults are enhancing IT exports and certifying skills

The region also targets ICT learning for working adults through firm-level training on enhancing IT export offerings or through skills certification. Colombia's Ministry of Information, Communication and Technologies has developed, a training programme dedicated to IT and digital content companies with ProColombia, the export promotion agency. The programme consists of specialised training courses on how to boost exports for the IT industry (ProColombia, n.d.). Chile has launched in 2008 *Chile Valora*, a programme to certify certain skills without taking into account the means by which the individuals have acquired such knowledge (professional experience, formal education or online training courses count equally). The aim of the programme is to give visibility to employers regarding current or potential employees' skillset and career potential, and help unemployed workers find a job (ChileValora, n.d.).

Furthermore, governments in the region are taking steps to improve the detection of skills shortages. For example, Chile and Brazil are working on some anticipation mechanisms. In Chile, skills councils are being created in the mining and wine industries to better identify needed skills and estimate future needs (Melguizo and Pages-Serra, 2017). Nevertheless, there is still room to enhance the effectiveness and impact of these initiatives, which are often isolated and not systematically adopted to influence policies or investment in skills development (González-Velosa and Rucci, 2016).

PRIVATE SECTOR INSIGHTS

Business representatives recommend strengthening governance at both national and regional level to enhance a stable political environment for long-term economic growth. In addition, multinationals investing in the region have emphasised the need to provide flexible market regulations to support innovation, improving digital infrastructure and increasing funding for innovative projects. Furthermore, to address skills mismatch in the labour market, firms advise governments to focus on training the workforce, notably in the use of new digital technologies, but also to improve soft skills and to continue to engage in public-private partnerships, to identify and close relevant gaps. Finally, key areas for additional discussions on institutional governance could include potentially improving anti-corruption legislation, promoting open governance, and the deepening of financial markets.

Creating a supportive business environment

Strengthening the rule of law and making regulations consistent can reduce risks for investors

Corruption threatens government legitimacy and credibility and can discourage private investment. Solid institutions, in particular an independent and well-functioning judiciary system, can increase business confidence and reduce the perception of investment risk. Companies stressed the importance of the rule of law in their decisions to invest and in their risk management activities. World Bank Enterprise Surveys show that nearly 25% of firms in Latin America and the Caribbean see the court systems as a major constraint (World Bank, 2017). The figure rises to over 40% of firms in Argentina, Brazil, Guatemala, Honduras and Suriname (World Bank, 2017).

Furthermore, making the application and interpretation of regulations more consistent will also help reduce the business risk. EMnet members mentioned as an example the controversial case of a Colombian arbitration court that in 2017 overruled the renegotiation of some clauses of a contract regarding the property of the installed telecommunication infrastructure between the country and two local telephone service providers, Claro and Movistar, resulting in an important fine for the two companies. This created a sense of uncertainty around contractual protections that could hamper through this precedent the fruition of further negotiations on investment opportunities in this sector or even more generally (Reuters, 2017a).

Businesses welcome new anti-corruption measures but also stress the importance of enforcement

Companies argue that corruption generates additional transaction costs and risks. According to the World Bank Enterprise Survey (2017) nearly 10% of firms in Latin America and the Caribbean experience at least one bribe request, almost 20% of companies expect to give gifts to secure government contracts and nearly 40% of firms see corruption as a major constraint. A study by Transparency International ranks countries around the globe on perceptions of corruption and attributes a score on the Corruption Perceptions Index, which ranges from 0 (highly corrupt) to 100 (very transparent). Any score below 50 indicates that governments are failing to tackle corruption. Results from this study show that, on average, Latin American countries scored 41.9 out of 100, below the average of OECD member countries (68.37) or Asia and the Pacific (44.19) (Transparency International, 2017).

Corruption can pose a real threat to the national economic growth potential. For instance, a 2015 report by the Mexican Institute for Competitiveness (IMCO) estimated that corruption in Mexico costs the national economy as much as 5% of its GDP (IMCO, 2015). Firms highlighted that although government responses to corruption have been improving, it is essential that they are also accompanied by appropriate enforcement and capacity building. For instance, the National Anti-corruption System that was implemented in Mexico in 2016 aims to reduce corruption in the country and improve the national business environment. The system tackles corruption through measures such as the creation of new Co-ordination and Citizen Participation Committees, responsible for designing new anti-corruption policies, as well as a Special Anti-corruption Prosecutor, in charge of enforcement efforts (OECD, 2016d).

It was noted that corruption risks can also make firms reconsider their decision to invest in certain countries. In Colombia, for example, the Fourth Generation Program (4G), a USD 50 billion private-public partnership infrastructure programme was put on hold because of corruption scandals affecting the relevant construction companies. As a result, it was discussed how local banks have been less willing to engage in project finance due to these past negative experiences. Even when in the case of the 4G road infrastructure programme specifically, exposed banks will be repaid through a trust fund and by government funds (Weinman, 2017).

Open government can be a useful tool to improve governance

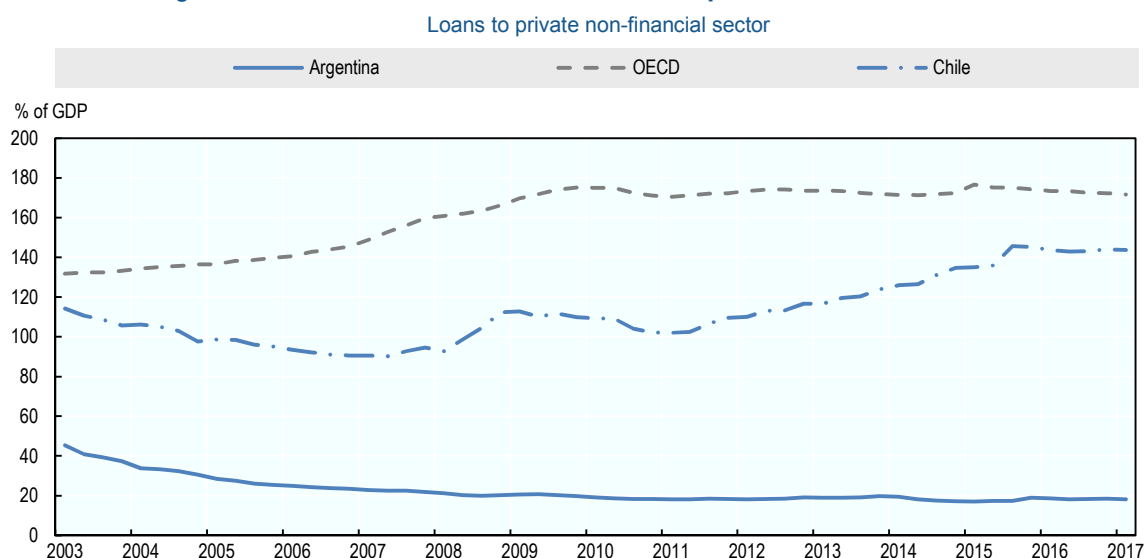
Firms agreed that a greater use of open government practices constitutes a step in the right direction to improve transparency and encourage accountability. Latin American countries are making progress in this area and 62% of countries in the region have adopted open government strategies (OECD, 2016b). As of July 2017, 15 countries participate in the Open Government Partnership, a global initiative for open governance launched in 2011 (Open Government Partnership, 2017). Some countries have created citizen councils to bring together civil society, academia and the private sector to discuss and make decisions about local development issues. These countries include Brazil, Colombia, Guatemala, Mexico, Paraguay and Peru (OECD/ECLAC/CAF, 2018,).

Deepening financial markets

The deepening of financial markets is needed to improve access to long-term finance. The private sector highlighted the case of Argentina as a country with a particular need for developing long-term finance mechanisms (Figure 1.5). Financial markets in the country are smaller now than they were in 2000 with both

bank credit to the private sector and stock market capitalisation far below levels of OECD and other Latin American countries. SMEs are particularly hurt by financing limitations (OECD, 2017a; OECD, 2017d). In Costa Rica, a country where access to finance by SMEs is particularly limited, less than 10% of total credit flows to these enterprises, in contrast to the OECD average of 25% (OECD, 2013).

Figure 1.5. The financial sector is less developed than in other countries



Source: OECD (2017e), OECD Economic Outlook, Volume 2017 Issue 2: Preliminary version, OECD Publishing, Paris, http://dx.doi.org/10.1787/eco_outlook-v2017-2-en.

Leveraging the improvement of global trade prospects for the region

Growing protectionism in developed economies creates opportunities for increased inter-regional trade

New US administration policies regarding trade barriers could gravely affect countries that are dependent on exports to the American market such as Mexico or Central American economies (OECD/ECLAC/CAF, 2015). For example, 80% of Mexico's exports go to the United States and 50% of the country's imports come from the United States. Furthermore, Mexico's manufactured goods are integrated in many US firms' manufacturing supply chains (Deloitte, 2015). Mexico's interlinkages with its northern neighbour were strengthened in 1994 with the enforcement of the NAFTA agreement. The United States has expressed interest in renegotiating the treaty (White House, 2017). Any renegotiation of the NAFTA agreement would create considerable uncertainty for Mexico and could delay investment plans (OECD, 2017d). This would not only impact Mexico, but could also spread to other Latin American countries. Central America in particular, which harbours some of the region's fastest growing economies, could be at risk as an unsuccessful renegotiation of the NAFTA agreement could set a precedent for similar agreements such as the Dominican Republic-Central American Free Trade Agreement (CAFTA-DR) (Feinberg, 2017).

Furthermore, increasing global protectionist rhetoric has further increased the risk posed to Latin American economies, as restrictive measures to trade in Europe or China would negatively impact trading partners. In Europe for example, the Brexit referendum marks a new era for trade relations in the region.

Within this context, businesses think that Latin American economies could take advantage of a potential commercial withdrawal of the United States in the region. For example, commodity exporters such as Brazil or Argentina could challenge the predominant position of the United States in the Mexican market. Mexico imported USD 2.6 billion in corn from the United States in 2016 but is considering increasing corn purchases from Brazil and Argentina (Semple, 2017).

Companies put an emphasis during the EMnet discussions on the importance of leveraging regional integration as a way of fighting growing global protectionism. For instance, firms highlighted the need to identify sectors that could benefit from commercial integration through improved competitiveness or better developed value chains. In the case of Peru for instance, fish meal and oil, zinc, plastics, chemical products, alcoholic beverages and fabrics and woven goods could be ideal focus sectors for greater trade within the Pacific Alliance, a regional initiative that includes Peru, Chile, Colombia and Mexico (Ruiz, 2016b).

Companies also stressed the importance of the Pacific Alliance's achievements towards the creation of a free trade zone. One major achievement for commercial integration has been the enforcement of the Additional Protocol as of 1 May 2016. The measure creates a free trade zone for 92% of the goods traded within the zone, with the intention to eliminate tariffs on the remaining 8% (primarily agricultural products) by 2030. In addition to the creation of a free-trade zone, the Additional Protocol aims at improving the region's integration into international global value chains through harmonisation and accumulation of rules of origin (EY, 2015). Accumulation of origin can facilitate trade as it allows for inputs from a member country to be used in another member country as domestic input (OECD, 2017b). However, there is still work to be done to increase trade between Pacific Alliance members. Trade amongst countries in the Alliance only represented 4% of the total foreign trade of each country (Ruiz, 2016a).

Businesses encourage a private public dialogue to lift existing barriers to trade in the Pacific Alliance

To increase inter-regional trade, firms highlighted the need to continue the dialogue between the public and private sectors. The Pacific Alliance's Business Council was identified as a valuable initiative to promote a policy discussion to lower existing barriers to investment and move towards a more business-friendly regulatory framework. Created in 2013, the Business Council of the Pacific Alliance is composed of the business associations from the four Pacific Alliance member countries. It provides recommendations regarding the progress of economic integration initiatives and suggests areas for future co-operation. The Business Council can provide "real world" feedback, facilitate integration and promote dialogue. The Council has been working on recommendations regarding trade facilitation, uniformity of tax regulation, financial integration, harmonization of technical standards, co-ordination in education, and support to entrepreneurship (EY, 2015). The Council has been also an active advocate of tax uniformity. Fiscal regulations are different in the four countries, and only recently has the Alliance made progress in this area, such as for instance the agreement to harmonise taxation for investments made by pension funds (Reuters, 2017b).

The Pacific Alliance should leverage the momentum gained with the Mercosur

Companies participating in the EMnet meeting welcomed the trade momentum between the Pacific Alliance and the Mercosur. In Argentina, the current government aims at promoting the country's attractiveness abroad, and reinserting Argentina in the global economy by liberalising and increasing trade and investment flows (Marczak and George, 2016). Similarly in Brazil, there are efforts to pursue a more outward-looking strategy for economic development (Marczak and George, 2016). Argentina and Brazil have advocated for deeper commercial relationships between the Mercosur and the Pacific Alliance. As a result, representatives from the two trade institutions met in Buenos Aires in April 2017 to discuss greater co-operation. A joint communiqué was issued after the meeting outlining a roadmap for a common line of work in trade facilitation and promotion, custom co-operation, identification of regional value chains and support for development of SMEs (Ministry of Foreign Affairs of Argentina, 2017). Businesses in both regional blocks could benefit from deeper commercial ties through larger market access. In addition, through this type of engagement, Pacific Alliance countries could provide a bridge between East Asia and the region's Atlantic coast (Marczak and George, 2016). This is particularly relevant given the increasing importance of Asia and in particular China, to the region's development and the need to remain competitive to reap the benefits from this strengthening partnership (OECD/CAF/ECLAC, 2015).

Encouraging innovation in Latin America

Economies in the region remain reliant on natural resources and on activities with low value-added, highlighting the need for greater innovation. In Peru for instance, more than half of workers are employed in low-productivity sectors: retail, hospitality and agriculture (OECD/IDB, 2016a). Although factor accumulation has increased in the region, total factor productivity has decreased. The net result of these two opposing trends leads to an 8% increase in the per capita income gap between Latin America and the United States (OECD/IDB, 2016a). Companies argued that investing in innovation and in the digital economy, with a focus on developing the broadband infrastructure (for example, access to 4G), could support the transition to higher-value added products and services.

EMnet participants noticed that initiatives such as Universal Service Funds, systems of telecommunications subsidies aimed at funding broadband extension efforts, constitute an effective policy tool to support innovation. There are already several existing Universal Service Funds operating in the region such as the FONATEL, PRONTIS and FODETEL funds, located in Costa Rica, Bolivia and Ecuador respectively (OECD/IDB, 2016b).

Finally, traditional industries, such as agriculture, should not be ignored as they can also offer opportunities for innovation and higher productivity. Companies highlighted the importance of agribusiness in many countries and the use of technological innovations to improve the sector's productivity. Biotechnology, for example, holds a significant potential for development, but the region thus far has had limited success in developing the sector (Solleiro et al., 2017).

Enhancing competition policies for innovative technologies

Companies highlighted that market regulations should be flexible and support competition. If regulations do not favour competition they can potentially prevent high-technology firms from accessing local markets. Following OECD recommendations, Mexico initiated a reform of its telecommunications sector in 2013, allowing for 100% foreign corporate ownership, which led to greater competition and increased productivity (OECD, 2017e). Foreign firms such as AT&T, a US mobile operator, have made substantial investments in Mexico subsequent to these reforms. The company announced investments of USD 3 billion for 4G coverage and expects a customer base of 100 million people by 2018 (AT&T, 2015). OECD recommendations promote pro-competition regulations and reforms in the region with the aim to encourage companies to be more innovative and efficient, especially in the energy and telecommunication sector (OECD/IDB, 2016b). Enhanced competition can lead to lower prices, benefitting households and professional consumers. In the case of Mexico's 2013 reform of the telecommunications sector, the increase in competition resulted in a 25% reduction in prices for businesses and consumers (OECD, 2017e). Companies highlighted that further efforts in this area are still required. In countries like Colombia for instance, companies stressed the need to continue working towards implementing reforms enhancing competitiveness. Although Colombia has significantly improved its regulatory framework, by simplifying administrative procedures for starting a business, for instance, regulations in industries such as electricity and transports (roads and rails) remain very stringent. In the rail sector, infrastructure and provision of services are managed by a single operator, while in the road sector prices are controlled and barriers to entry persist (OECD, 2017f).

In addition, companies expressed that the regulatory framework in key sectors, such as telecommunications and energy, often do not clearly separate responsibilities between regulating entities. This results in overlapping responsibilities among different institutions that can create confusion for businesses. Colombia was mentioned by the private sector as a country that would need to strengthen the independence of the regulator for telecommunications. In this instance, the dual presence of the Colombian state as both a regulator and regulated entity increases the complexity of the sector (OECD, 2014a). Another example from Argentina was also discussed. In this case, businesses highlighted how the lack of coordination between provincial and federal regulatory entities has resulted in different electricity tariffs for consumers in Buenos Aires and in the rest of the country. Electric utilities located in the province of Buenos Aires are supervised by a local regulator, the *Ente Nacional Regulador de Electricidad*, which is subject to the national legislation. However, electric utilities located in other parts of the country are subject to provincial legislation and a different group of regulators.

Infrastructure to support innovative technologies still needs to be improved

Businesses highlighted how Latin America needs better infrastructure to support innovation. Internet access, for example, remains one of the main challenges to the expansion of digital services (OECD/IDB, 2016b). The share of the population connected to the Internet more than doubled in Latin America from 21% in 2006 to 56% in 2016, while remaining low compared to the OECD average of 79% (World Bank, 2018). An estimated 300 million people still do not have access to the Internet in the region (OECD/IDB, 2016b).

Private sector investment in network deployment could resolve this connectivity problem. EMnet members highlighted that governments should establish a sound regulatory and legal framework, to ensure the economic viability for private sector investments in the long run. Further network deployment faces certain specific obstacles, notably, an absence of basic infrastructure, particularly in remote areas, and the lack of electricity services. Furthermore, the lack of roads can make it difficult to install the basic infrastructure for internet deployment (OECD/IDB, 2016b).

Businesses also argue that the quality of infrastructure could be improved, even though countries are committed to support the deployment of new technologies, particularly in ICT. For example, businesses suggest that mobile deployment has, in general, been a success but that the network for broadband coverage needs to be upgraded. In 2015, approximately 64 million people in the region as a whole did not have 3G/4G mobile broadband coverage, representing approximately 10% of the population (GSMA, 2015).

Companies also stressed the importance of considering social inclusion, ensuring that low-income people have access to the digital economy. Policies can play an important role in reducing the “affordability gap”, which refers to the number of people or households that cannot afford ICT services (OECD/IDB, 2016b). The private sector is playing an increasingly important role in addressing the digital divide. For instance, within the context of its “Internet for All” initiative, Telefónica has worked on extending broadband coverage in the most remote areas across Latin America (Telefónica, 2017). A similar project in Chile, called “Todo Chile Comunicado”, announced by Entel and the government of Chile in 2010, aims at extending broadband services to the country’s rural areas. It has been estimated that up to 1,474 rural communities and over three million people have been able to gain access to internet and mobile services as a result of this programme (Entel, nd).

Better institutional co-ordination is needed to boost innovation

Innovation requires better co-ordination between academic institutions, public entities working on innovative projects and the private sector. When developing ICT policies, for instance, co-ordination between different stakeholders is useful to identify existing regulatory barriers. In the area of digitalisation, multinational companies, such as Ericsson, Facebook and Nokia have called for stronger interdepartmental collaboration through the Broadband Commission for Sustainable Development. This commission is an International Telecommunications Union (ITU) and UNESCO initiative aimed at expanding broadband access, with the help of private sector. Partners include Microsoft, Huawei and Digicel (Broadband Commission for Sustainable Development, 2017). The OECD also recommended more co-operation between public and private sectors to build cross-sectoral initiatives and enhance the impact of digital innovation (OECD, 2014b).

Companies further recommended identifying one “champion” entity (e.g. ministry, agency, inter-departmental body) to lead and co-ordinate digital initiatives across different sectors. Colombia, for example, has adopted this co-ordination strategy through its Ministry of Information Technologies and Communications (MinTIC), which is responsible for co-ordinating all digital initiatives and overseeing the implementation of digital strategies across different sectors (MinTIC, 2017).

More public funding to kick-start innovative projects is needed

Access to finance for innovative projects is essential. Businesses highlight that public funding could kick-start innovation particularly for R&D in digitalisation. Furthermore, it was discussed how initial public funding for a project can incentivise more private sector involvement. Costa Rica, for example, could benefit from a new strategy to enhance financial support for science and technology, as well as business innovation programmes (OECD, 2017g). In the region as a whole, public funding is particularly needed. Gross Domestic Expenditure on R&D (GERD) represents at best 1% of GDP across the region. Chile, Colombia and Peru all spend less than 0.5% of GDP on R&D (UNESCO, 2018).

Furthermore, companies expressed their interest in following the example of countries such as Israel in areas related to funding and assistance for innovative firms. Indeed, Israel has developed technological incubators that provide financing for SMEs or researchers that would like to develop technology-intensive projects. The incubators’, partly funded by the government as well by the private sector, provide financial assistance, as well as administrative and legal support to these firms (see Israel Innovation Authority, n.d.).

Companies across industries are developing incubators and accelerators to support innovation and scale up small firms. For example, in Argentina, the insurance company Sancor Seguros has developed a technology incubator that funds projects in biotechnology, nanotechnology, engineering and other technology-related field. The goal of this incubator, the Centre for Technological, Business and Social Innovation (CITES), is to create a cluster of start-ups working on innovative projects with high-value added for the economy and the society. CITES can invest up to USD 500 000 per start-up and also provides access to co-working space, mentoring, networking opportunities with investors, and training programmes (CITES, n.d.). Telefonica, the Spanish telecommunications firm, has created a network of business accelerators through its Wayra platform. Wayra helps entrepreneurs to connect with financiers and build professional networks to expand their businesses, through its presence in 11 countries across Latin America and Europe (Telefónica, n.d.).

Enhancing skills

Soft skills and technical skills are still lacking in the region

Companies discussed how employers in the region encounter difficulties when filling positions because they lack applicants with the needed skills, either hard (technical competencies) or soft (workplace competencies). Businesses stressed in particular the importance of soft skills in the years to come. Digitalisation is changing the nature of work and increasing emphasis is given by employers to problem-solving skills, creativity and emotional intelligence (OECD/ECLAC/CAF, 2016). The region still lags behind in equipping its labour force with the skillset companies are looking for. In Latin America, formal companies report a higher talent shortage average (44%) than the global average (40%). Peru, Colombia and Argentina score the worst in this Talent Shortage survey with 46%, 50% and 59% respectively (Manpower Group, 2016). Some countries are addressing this issue by investing intensively in their education systems. For example, Costa Rica is devoting around 8% of its GDP on education, surpassing the OECD average of 5.2% (OECD, 2017f).

Companies are increasingly developing training programmes and partnerships to address skills gaps

In response to the skills shortage, employers are increasingly developing training programmes for staff in order to reskill or upskill their workforce. Globally, 53% of employers offer training and development to existing staff according to ManpowerGroup (2017). Businesses are also eager to build partnerships between both public and private educational institutions to improve training and reduce skills gaps. These partnerships are particularly relevant to vocational education and training (VET) programmes. The OECD Education Policy Review of Chile highlights that engaging employers more systematically in the development of VET programmes could help adapt course content to labour market requirements (OECD, 2017h).

Bancolombia has a leadership training programme for new employees recruited for management positions. Furthermore, the bank offers more than 200 online training courses on different subjects. It has also developed a scholarship program “*Becas de Excelencia*” dedicated to the banks’ employees wishing to enrol in a graduate programme (Master degree or Master of Business Administration). This scholarship programme has existed since 1997 and every year an average of 20 employees get to study abroad for one of two years and then return to the bank.

Partnerships can also be used to improve skills for potential clients. Bancolombia offers a training programme on corporate governance for Colombian SMEs in partnership with the International Financial Corporation and Medellin’s Chamber of Trade. The programme includes training on corporate governance given by experts as well as a website with online training and guidelines on good corporate governance principles (Bancolombia, 2017).

Ferreycorp, a Peruvian heavy goods equipment distributor active in the construction and mining industries, has partnered for the past 10 years with a private technical school TECSUP to train students as mechanics for Caterpillar machinery as part of their “Think Big” programme. The two-year programme mixes trainings with on-the-job experiences and provides employment options within the company at the conclusion of the training (Ferreycorp, n.d.).

CONCLUSION

The economic outlook for Latin America is improving but there is still much work to be done. A number of barriers remain for businesses to truly benefit from the strengthening global economy. Institutional weaknesses persist and companies stress the importance of reducing corruption, improving innovative infrastructure and deepening financial markets for long-term investment.

As growth momentum builds, Latin America has an opportunity to improve innovation and skills to support higher investment in productivity. Greater innovation is needed to upgrade traditional industries as well as support the development of an inclusive digital economy. Improving digital infrastructure, particularly high-speed internet is also essential. Tailored training programmes and public-private co-operation can help to reduce skills gaps and mismatches in the labour market.

Greater trade integration within the region as well as partnerships with external markets are essential. The Pacific Alliance and Mercosur are showing signs of collaboration and developing further trade with Asian and European markets holds promise. The region must take steps to diversify offerings and take advantage of a new trade momentum, to enhance its productive capacity and better integrate into global value chains.

With targeted support from the public sector in areas such as skills development and innovation and through effective policy design and implementation, there is potential for new business opportunities to emerge in the region which can enhance competitiveness by better integrating Latin America into global value chains and set the foundations for stronger and more consistent levels of economic growth over the long term.

References

- AT&T (2015), "AT&T to Invest Approximately US\$3 Billion in Mexico to Extend Mobile Internet to 100 Million Consumers & Businesses by Year-End 2018", Press Release, June 25, http://about.att.com/story/att_to_invest_approximately_3_billion_in_mexico_to_extend_mobile_internet_to_100_million_consumers_and_businesses_by_year_end_2018.html.
- Avendano, R., A. Melguizo and S. Miner (2017), "Chinese FDI in Latin America", Atlantic Council, <http://www.atlanticcouncil.org/publications/reports/chinese-fdi-in-latin-america>.
- Bancolombia (2017), "Bancolombia presenta el programa gobierno corporativo para sus clientes pyme", July 22, www.grupobancolombia.com/wps/portal/acerca-de/sala-prensa/todos-los-articulos/mercado/bancolombia-presenta-gobierno-corporativo-para-clientes-pyme.
- Bloomberg L.P. (2018), MXN/USD exchange rate graph 2013-2018 Retrieved from Bloomberg database: <https://www.bloomberg.com/quote/MXNUSD:CUR>.
- Broadband Commission for Sustainable Development (2017), Working Group on Digitalization Scorecard: Which Policies and Regulations can Help Advance Digitalization, www.broadbandcommission.org/Documents/publications/WG-Digitalization-Score-Card-Report2017.pdf.
- Castillo, V., A. Maffioli, S. Rojo, and R. Stucchi (2014), "Knowledge Spillovers of Innovation Policy through Labor Mobility: An Impact Evaluation of the FONTAR Program in Argentina", Working Paper No. 488 m Washington, DC: Inter-American Development Bank, <https://publications.iadb.org/handle/11319/4779?scope=123456789/12&thumbnail=false&order=desc&rpp=5&sort=by=score&page=0&query=FONTAR+ARGENTINA&group=by=none&etal=0>.
- ChileValora (n.d.), "Que Hacemos", Comisión del Sistema Nacional de Certificación de Competencias Laborales, <http://www.chilevalora.cl/que-hacemos/> (Accessed 15 December 2017)
- CITES (n.d.), "About us", CITES webpage, Retrieved from: <http://cites-gss.com/en/que-hacemos/>.
- CLAAF (2017), "Latin America's policy options for times of protectionism", April 26, <https://www.brookings.edu/opinions/latin-america-policy-options-for-times-of-protectionism/>.
- Cornell University, INSEAD, and WIPO (2017), The Global Innovation Index 2017: Innovation Feeding the World, Ithaca, Fontainebleau, and Geneva, www.globalinnovationindex.org/gii-2017-report.
- Crespi, G., A. Maffioli, and M. Meléndez (2011) "Public Support to Innovation: The Colombian COLCIENCIAS' Experience", Publication 38498, Washington, DC, Inter-American Development Bank, <https://publications.iadb.org/bitstream/handle/11319/4929/Public%20Support%20to%20Innovation%3a%20the%20Colombian%20COLCIENCIAS%C2%BF%20Experience.pdf?sequence=1&isAllowed=y>.
- Deloitte (2015), Competitiveness: Catching the Next Wave Mexico, www2.deloitte.com/content/dam/Deloitte/global/Documents/About-Deloitte/gx-gbc-mexico-competitiveness-report-english.pdf.
- ECLAC (2017a), Foreign Direct Investment in Latin America and the Caribbean, 2017, LC/PUB.2017/18-P, Santiago, <https://www.cepal.org/en/publications/type/foreign-direct-investment-latin-america-and-caribbean>.
- ECLAC (2017b), Preliminary Overview of the Economies of Latin America and the Caribbean, Santiago, www.cepal.org/en/publications/type/preliminary-overview-economies-latin-america-and-caribbean.
- Entel (n.d.) Todo Chile Comunicado project page, Chile. <http://informacioncorporativa.entel.cl/sustentabilidad/todo-chile-comunicado> (accessed 12 February 2018).
- EY (2015), Pacific Alliance Business and Investment Guide, [www.ey.com/Publication/vwLUAssets/Gu%C3%ADa_de_la_Alianza_Pac%C3%ADfico_2015_2016/\\$FILE/EY_quia_alianza_pacifico_2015_2016_ingles.pdf](http://www.ey.com/Publication/vwLUAssets/Gu%C3%ADa_de_la_Alianza_Pac%C3%ADfico_2015_2016/$FILE/EY_quia_alianza_pacifico_2015_2016_ingles.pdf).
- Feinberg, R.E. (2017), "What Trump's 'America First' means for Latin America", Brookings, 17 October, 2017, Retrieved from: <https://www.brookings.edu/blog/order-from-chaos/2017/10/17/what-trumps-america-first-means-for-latin-america/>.
- Ferreycorp (n.d.), "Responsabilidad Social", Ferreycorp Website, <https://www.ferreycorp.com.pe/ferreycorp/responsabilidad-social/comunidad> (accessed 15 December 2017).
- González-Velosa, C. and G. Rucci (2016), Methods to Anticipate Skills Demand, Inter-American Development Bank, publications.iadb.org/bitstream/handle/11319/7458/Methods-to-Anticipate-Skills-Demand.pdf?sequence=4&isAllowed=y.
- GSMA (2016), Connected Society, Digital Inclusion in Latin America and the Caribbean, GSMA Intelligence, <https://www.gsmainelligence.com/research/?file=895f6c0a1efa7a25f5d6b4ff874e92f1&download>.
- GSMA (2015), Closing the Coverage Gap: Digital inclusion in Latin America, GSMA Intelligence, www.gsmainelligence.com/research/?file=8d7dab34d9b95d36eed5ee37cbb03580&download.

- IMCO (2015), La Corrupción en México: Transamos y no Avanzamos. <https://imco.org.mx/competitividad/indice-de-competitividad-internacional-2015-la-corrupcion-en-mexico-transamos-y-no-avanzamos/> (accessed 08 March 2018).
- IMF (2017), Regional Economic Outlook Update - Latin America and the Caribbean, October, 2017, <https://www.imf.org/en/Publications/REO/WH/Issues/2017/10/11/wreo1017>.
- Israel Innovation Authority (n.d.), "Incubators Incentive Program", <http://www.matimop.org.il/Incubators.html> (accessed on 08 March 2018).
- Katz, R. (2015), "El ecosistema y la economía digital en América Latina, Editorial Ariel, Fundación Telefónica, Editorial Planeta, Madrid and Barcelona, <http://scioteca.caf.com/handle/123456789/768>.
- KPMG (2017), Global Tax Benchmarking series: Latin America special report, <https://home.kpmg.com/xx/en/home/insights/2017/06/latin-america-benchmarking-report.html> (accessed 30 January 2018).
- ManpowerGroup (2017), Human Age 2.0: A Skills Revolution, www.manpowergroup.com/workforce-insights/world-of-work/human-age2-the-skills-revolution.
- ManpowerGroup (2016), Talent Shortage Survey (2016), <https://www.manpowergroup.com/talent-shortage-explorer/#.WowdLE2WYUk>.
- Marczak, J. and S. George (2016), Pacific Alliance 2.0: Next steps in Integration, The Atlantic Council of the United States and The Bertelsmann Foundation, <http://www.atlanticcouncil.org/publications/reports/pacific-alliance-2-0-next-steps-in-integration>.
- McKinsey Global Institute (2017), A Future that Works: Automation, Employment, and Productivity, McKinsey & Company, <https://www.mckinsey.com/-/media/McKinsey/Global%20Themes/Digital%20Disruption/Harnessing%20automation%20for%20a%20future%20that%20works/MGI-A-future-that-works-Executive-summary.ashx>.
- Melguizo, M. and Pages-Serra, C. (2017), In Latin America, companies still can't find the skilled workers they need", World Economic Forum (WEF), <https://www.weforum.org/agenda/2017/03/in-latin-america-companies-still-can-t-find-the-skilled-workers-they-need/>.
- Mitchell, J. (2017, May), Peru presses ahead with PPP plans despite scandal, FDI Intelligence, Retrieved from: <https://www.fdiintelligence.com/Locations/Americas/Peru/Peru-presses-ahead-with-PPP-plans-despite-scandal>.
- Ministerio de Tecnologías de la Información y las Comunicaciones (MinTIC) (2017), "MinTIC y ProColombia realizan talleres en tres ciudades del país sobre cómo exportar TI y contenidos digitales", July 13, www.mintic.gov.co/portal/604/w3-articulo-54583.html.
- Ministry of Foreign Affairs of Argentina (2017), "Meeting of Foreign Ministers Mercosur-Pacific Alliance: Joint Communiqué", 7 April, www.mrecic.gov.ar/en/meeting-foreign-ministers-mercosur-pacific-alliance-joint-communique.
- Monteiro, F. and L. Casanova (2016), Desempenho do Brasil no Global Índice de Inovação (2011-2016), <http://www.ipdeletron.org.br/wwwroot/pdfpublicacoes/34/desempenho-do-brasil-no-indice-global-de-inovacao-2011-2016.pdf>.
- OECD (2017a), OECD Economic Surveys: Argentina 2017: Multi-dimensional Economic Survey, OECD Publishing, Paris, http://dx.doi.org/10.1787/eco_surveys-arg-2017-en.
- OECD (2017b), "Business Insights on Emerging Markets 2017", OECD Development Centre, Paris, <http://www.oecd.org/development/development-philanthropy/emnetknowledgeproducts.htm>.
- OECD (2017c), OECD Integrity Review of Mexico, Taking a Stronger Stance Against Corruption, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264273207-en>.
- OECD (2017d), OECD Economic Outlook, Volume 2017 Issue 2: Preliminary version, OECD Publishing, Paris, http://dx.doi.org/10.1787/eco_outlook-v2017-2-en.
- OECD (2017e), OECD Economic Surveys: Mexico 2017, OECD Publishing, Paris, http://dx.doi.org/10.1787/eco_surveys-mex-2017-en.
- OECD (2017f), OECD Economic Surveys: Colombia 2017. OECD Publishing, Paris, http://dx.doi.org/10.1787/eco_surveys-col-2017-en.
- OECD (2017g), OECD Reviews of Innovation Policy: Costa Rica 2017, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264271654-en>.
- OECD (2017h), Education in Chile, Reviews of National Policies for Education, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264284425-en>.
- OECD (2016a), Policy Brief on the Future of Work: Skills for a Digital World, www.oecd.org/els/emp/Skills-for-a-Digital-World.pdf.
- OECD (2016b), Government at a Glance, Latin America 2017, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264265554-en>.
- OECD (2016c), PISA 2015 Results (Volume I): Excellence and Equity in Education, PISA, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264266490-en>.

- OECD (2016d), “Mexico’s National Anti-corruption System Statement from OECD Secretary-General Angel Gurría”, Statement from OECD Secretary-General Angel Gurría, August 01, <http://www.oecd.org/about/secretary-general/mexico-national-anti-corruption-system-statement-from-oecd-secretary-general.htm> (accessed 15 February 2018).
- OECD (2014a), OECD Review of Telecommunication Policy and Regulation in Colombia, OECD Publishing Paris, <http://dx.doi.org/10.1787/9789264208131-en>.
- OECD (2014b), Recommendation of the Council on Digital Government Strategies, OECD Publishing, Paris, <http://www.oecd.org/gov/digital-government/Recommendation-digital-government-strategies.pdf>.
- OECD (2013), Costa Rica – Investment Policy Review, OECD Publishing, Paris, <http://www.oecd.org/daf/inv/investment-policy/costa-rica-investment-policy-review.htm>.
- OECD/CIAT/IDB/ECLAC (2017d), Revenue Statistics in Latin America and the Caribbean 2017, OECD Publishing, Paris, http://dx.doi.org/10.1787/rev_lat_car-2017-en-fr.
- OECD/ECLAC/CAF (2018), Latin American Economic Outlook 2018: Rethinking Institutions for Development, OECD Publishing, Paris, <http://dx.doi.org/10.1787/leo-2018-en>.
- OECD/ECLAC/CAF (2016), Latin American Economic Outlook 2017: Youth, Skills and Entrepreneurship, OECD Publishing, Paris, <http://dx.doi.org/10.1787/leo-2017-en>.
- OECD/ECLAC/CAF (2015), Latin American Economic Outlook 2016: Towards a New Partnership with China, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264246218-en>.
- OECD/IDB (2016a), Boosting Productivity and Inclusive Growth 2016, www.oecd.org/latin-america/Boosting_Productivity_Inclusive_Growth.pdf.
- OECD/IDB (2016b), Broadband Policies for Latin-America and the Caribbean: a Digital Economy Toolkit, www.oecd.org/publications/broadband-policies-for-latin-america-and-the-caribbean-9789264251823-en.htm.
- OECD/ECLAC/CAF(2018), Latin American Economic Outlook 2018: Rethinking Institutions for Development, OECD Publishing, Paris, <https://www.oecd-ilibrary.org/docserver/leo-2018-en.pdf?expires=1524141600&id=id&accname=ocid84004878&checksum=BB9139234EB085A3267440B07D3D3D1C>.
- OECD/WTO/UNCTAD (2017), Eighteenth Report on G20 Investment Measures, November 9, <http://www.oecd.org/daf/inv/investment-policy/18th-Report-on-G20-Investment-Measures.pdf>.
- Open Government Partnership (2017), “Participants”, www.opengovpartnership.org/participants.
- ProColombia (n.d.), “Que es ProColombia?”, <http://www.procolombia.co/procolombia/que-es-procolombia>.
- Programa Nacional de Becas y de Crédito Educativo (PRONABEC) (2017), Ministerio de Educación, Peru, www.pronabec.gob.pe/2017_Beca18_Internacional.php (accessed 12 December 2017).
- Reuters (2017a), “Colombian tribunal fines Claro, Movistar over contract”, Reuters, 26 June, 2017, Retrieved from: <https://www.reuters.com/article/us-colombia-telecoms/colombian-tribunal-fines-claro-movistar-over-contract-idUSKBN1AB077> (accessed 2 February 2018).
- Reuters (2017b), “Pacific Alliance reaches tax accord for Pension Funds”, Reuters, 29 June, 2017, Retrieved from: www.reuters.com/article/us-pacificalliance-pensions-tax-idUSKBN19K2XI (accessed 2 February 2018).
- Reuters (2016), “Slim’s offer over FCC accepted by 25.66% of total share capital”, Reuters, 22 July 2016, Retrieved from: <https://www.reuters.com/finance/stocks/GCARSOA1.MX/key-developments/article/3410151> (accessed 25 April 2018)
- Ruiz, J.M. (2016a), Potential and Outlook for the Pacific Alliance, BBVA, www.bbva.com/en/publicaciones/potential-and-outlook-for-the-pacific-alliance/.
- Ruiz, J.M. (2016b), “Peru and the Strength of the Pacific Alliance”, BBVA, June, www.bbva.com/en/peru-and-the-strengths-of-the-pacific-alliance/.
- Sample, K. (2017), “Mexico Ready to Play the Corn Card in Trade Talks”, The New York Times, April 2, www.nytimes.com/2017/04/02/world/americas/mexico-corn-nafta-trade.html.
- Solleiro, J.L, R. Castañón, K. Rodríguez and O. Mejía (2017) “Innovation in the Agri-Food Sector in Latin America and the Caribbean” in The Global Innovation Index 2017: Innovation Feeding the World, Cornell University, INSEAD, and WIPO, Ithaca, Fontainebleau, and Geneva, www.globalinnovationindex.org/gii-2017-report.
- Spring, J. (2018), China investment in Brazil hit seven-year high in 2017, Reuters, Retrieved from: <https://www.reuters.com/article/us-brazil-china-investment/china-investment-in-brazil-hit-seven-year-high-in-2017-idUSKBN1F7387>.
- Telefónica (2017), Telefónica uses Big Data to extend Internet coverage, Press Release, 27 April, <https://www.telefonica.com/en/web/public-policy/blog/article/-/blogs/telefonica-utiliza-big-data-para-extender-la-cobertura-de-internet>.
- Telefónica (n.d.), “Wayra”, Telefonica Open Futures Webpage, www.openfuture.org/en/spaces?FilterInitiative=wayra (accessed 19 December 2017)/.

- Transparency International (2017), Corruption Perceptions Index 2017, Retrieved from: https://www.transparency.org/news/feature/corruption_perceptions_index_2017#table (accessed 08 March 2018).
- UNCTAD (2017), World Investment Report 2017: Investment and Digital Economy, United Nations Conference on Trade and Development, Geneva, http://unctad.org/en/PublicationsLibrary/wir2017_en.pdf.
- United Nations Educational, Scientific and Cultural Organization (UNESCO) (2018), Gross Domestic Expenditure on R&D (GERD) database, <http://data.uis.unesco.org/Index.aspx?queryid=74> (accessed 12 October 2017).
- WEF (2016), The Future of Jobs: Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution, Global Challenge Insight Report, World Economic Forum, Geneva, <http://reports.weforum.org/future-of-jobs-2016/>.
- Weinman, A. (2017), “Odebrecht Effect Dampens Colombian Lenders’ Appetites”, Latin Finance, April 3, www.latinfinance.com/web-articles/2017/4/odebrecht-effect-dampens-colombian-lenders-appetites.
- White House (2017), “Readout of President Donald J. Trump’s Call with President Peña Nieto of Mexico and Prime Minister Trudeau of Canada”, <https://www.whitehouse.gov/briefings-statements/readout-president-donald-j-trumps-call-president-pena-nieto-mexico-prime-minister-trudeau-canada/>.
- World Bank (2018), Individuals using the Internet (% of population), <https://data.worldbank.org/indicator/IT.NET.USER.ZS> (accessed 2 February 2018).
- World Bank (2017), Enterprise Surveys, “Corruption” data www.enterprisesurveys.org/data/exploretopics/corruption#latin-america-caribbean (accessed 13 December 2017).
- World Bank (2016), World Development Report 2016: Digital Dividends, Washington, D.C. <http://www.worldbank.org/en/publication/wdr2016>.

For more information about the OECD Emerging Markets Network,
contact the Secretariat:

dev.emnet@oecd.org

www.oecd.org/dev/oecdemnet.htm

EM»net
OECD EMERGING MARKETS NETWORK

