

# BUSINESS INSIGHTS

## ON EMERGING MARKETS

2019



AFRICA

ASIA

LATIN  
AMERICA



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

Cite this study as:  
OECD (2019), "Business Insights on Emerging Markets 2019", OECD  
Emerging Markets Network, OECD Development Centre, Paris,  
<http://www.oecd.org/dev/oecdemnet.htm>.

# BUSINESS INSIGHTS ON EMERGING MARKETS 2019



## 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 30 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 more information on the Centre, please see [www.oecd.org/dev](http://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>.

## FOREWORD

We live in uncertain times. Escalating trade tensions, financial volatility and a global economic slowdown are affecting governments, citizens and businesses, particularly in the emerging markets. Recent OECD analysis projects that global growth is set to slow from 3.7% in 2018 to 3.3% in 2019 and 3.4% in 2020, with impending risks of a sharper decrease. Growing trade restrictions are having a negative impact on business confidence and investment plans. This economic volatility is evident in the financial turbulence that some emerging markets are experiencing.

At the same time, new and innovative technologies are changing the way businesses, consumers and governments interact with each other. The digital revolution is reshaping societies, and digitalisation's potential to streamline communications, facilitate production and generate greater productivity dividends is creating new opportunities.

In this evolving scenario, what are the policy priorities to promote social and economic development and unlock more private investment in Africa, Asia and Latin America? This edition of the *Business Insights on Emerging Markets* contributes to these questions and possible answers by presenting the views of private companies that participated in the high-level discussions organised by the Emerging Markets Network (EMnet), the platform for policy dialogue with the private sector managed by the OECD Development Centre.

Drawing from these discussions, which took place throughout 2018 around Asia, Latin America and Africa, the report addresses relevant policy priorities, including unlocking opportunities for sustainable growth in Asia through digitalisation; building stronger institutions in Latin America to restore and deepen business confidence; and developing quality infrastructure in Africa to support greater regional connectivity. In each region, the private sector's recommendations have been broad and comprehensive. They have included, for instance, ensuring that trade agreements in Asia are updated to adequately reflect the dynamics of e-commerce opportunities, focusing on structural reforms to restore business confidence in Latin America, and enacting policies to facilitate trade and regional integration in Africa.

Multi-stakeholder dialogue is essential for analysing best practices in all these areas. Such dialogue is also key to implementing the 2030 Agenda, including achieving the Sustainable Development Goals. We welcome the private sector's contribution to strengthening and widening the Development Centre's policy dialogue with its 57 member countries and look forward to continuing this insightful and mutually beneficial interaction.

**Mario Pezzini**  
Director, OECD Development Centre, and  
Special Advisor to the OECD Secretary-General on Development

## ACKNOWLEDGEMENTS

The OECD Development Centre's Emerging Markets Network (EMnet) prepared this publication, which includes a contribution from the Emerging Markets Institute of the Samuel Curtis Johnson College of Business at Cornell University. Bathylle Missika, Head of the Networks, Partnerships and Gender Division, and Lorenzo Pavone, Deputy Head of the Networks, Partnerships and Gender Division, guided the project. The publication was developed by Miguel Castro, EMnet Co-ordinator, and Robbert van Eerd, EMnet Policy Analyst.

Chapter 1 *“China’s International Investments Facing Policy Headwinds”* was written by Lourdes Casanova and Anne Miroux of the Emerging Markets Institute of the Samuel Curtis Johnson College of Business at Cornell University. This chapter builds on a previous publication by both authors.

Chapter 2 *“Accelerating Digitalisation in Asia”* was drafted by Robbert van Eerd and Jialu Ma from the EMnet team. The first section of this chapter was prepared by José Almeida Araújo, MBA student at the INSEAD business school, under the guidance of Robbert van Eerd. Kensuke Tanaka, Head, and Prasiwi Ibrahim, Economist of the OECD Development Centre's Asia Desk also contributed to this chapter.

Chapter 3 *“Investment and Confidence through Stronger Institutions”* was written by Miguel Castro and Thibault Vasse of the EMnet team, with support from Robbert van Eerd. Ángel Melguizo and Juan Vázquez Zamora of the OECD Development Centre's Latin America and the Caribbean Desk provided insights. This chapter also benefitted from comments and inputs from Manuel Aguilera Verduzco (MAPFRE), Ricardo Gonzalez Garcia (MAPFRE), Andrea Escobedo Lastiri (IBM), Eduardo Salido Cornejo (Telefónica) and Laurent Scheer (Pernod Ricard).

Chapter 4 *“Infrastructure and Regional Connectivity in Africa”* was written by Robbert van Eerd and Hae Kyeung Chun of the EMnet team. The first section of this chapter was prepared by Jay Shah, MBA student at the INSEAD business school, under the guidance of Robbert van Eerd. The report also benefitted from comments from Arthur Minsat, Head of the Europe, Middle East and Africa Desk at the OECD Development Centre; Miguel Castro, EMnet Co-ordinator; and Jon Lezamiz Cortazar, African Market Development Director at Siemens Gamesa.

The team is very grateful to the OECD Development Centre's Communications and Publications Unit, especially Elizabeth Nash, for their support in producing this publication. The authors also thank Linda Smiroldo Herda from the Director's Office of the Development Centre for her contribution. Finally, special thanks go to Sonja Märki, Grace Dunphy, Thibault Vasse, Hae Kyeung Chun, Martina Fattiboni Ferrara and Jaya Jain (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 2019

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.

The statistical data for Israel is supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.



# Table of contents

<b>Abbreviations and acronyms</b> .....	<b>8</b>
<b>Executive summary</b> .....	<b>12</b>
<b>1. China’s international investments facing policy headwinds</b> .....	<b>14</b>
China’s International Investments: The Swift Rise.....	15
An M&A reversal or a return to normalcy?.....	17
Chinese overseas investment facing policy headwinds.....	19
Is this the end or the beginning of Chinese overseas expansion?.....	23
<b>2. Accelerating digitalisation in Asia</b> .....	<b>25</b>
Asia’s economic and business overview .....	26
Impact of digitalisation on businesses in emerging markets.....	30
Business insights on digitalisation: Common challenges and evolving opportunities .....	35
Conclusion.....	50
<b>3. Investment and confidence through stronger institutions</b> .....	<b>57</b>
Latin America’s economic and business overview.....	58
Business confidence in Latin America .....	61
Private sector insights on institutional strengthening, business confidence and investment .....	69
Conclusion.....	82
<b>4. Infrastructure and regional connectivity in Africa</b> .....	<b>91</b>
Africa’s economic and business overview .....	92
Infrastructure challenges in africa.....	96
Business insights on infrastructure and regional connectivity.....	103
Conclusion.....	115

## ABBREVIATIONS AND ACRONYMS

<b>3D printing</b>	Three-dimensional printing
<b>AANZFTA</b>	ASEAN-Australia-New Zealand Free Trade Agreement
<b>ADFD</b>	Abu Dhabi Fund for Development
<b>AFD</b>	Agence Française de Développement (French Development Agency)
<b>AfDB</b>	African Development Bank
<b>AFESD</b>	Arab Fund for Economic and Social Development
<b>AgBank</b>	Agricultural Bank of China
<b>AI</b>	Artificial intelligence
<b>AIIB</b>	Asian Infrastructure Development Bank
<b>ASEAN</b>	Association of Southeast Asian Nations
<b>AU</b>	African Union
<b>AUC</b>	African Union Commission
<b>B2B</b>	Business-to-business
<b>B2C</b>	Business-to-consumer
<b>BADEA</b>	Arab Bank for Economic Development in Africa
<b>B-BBEE</b>	Broad-Based Black Economic Empowerment
<b>BoP</b>	Bottom of the pyramid
<b>BPO</b>	Business process outsourcing
<b>BRI</b>	Belt and Road Initiative
<b>BRIC</b>	Brazil, Russian Federation, India, China
<b>CAF</b>	Corporación Andina de Fomento (Development Bank of Latin America)
<b>CAFTA-DR</b>	Dominican Republic-Central America Free Trade Agreement
<b>CAPP</b>	Central Africa Power Pool
<b>CCB</b>	China Construction Bank
<b>CESC</b>	Contribución Especial para la Seguridad Ciudadana y Convivencia
<b>CFIUS</b>	Committee on Foreign Investment in the United States
<b>CFTA</b>	Continental Free Trade Area
<b>CIT</b>	Corporate income tax
<b>CLM</b>	Cambodia, Lao PDR and Myanmar
<b>CNPC</b>	China National Petroleum Corporation
<b>COMELEC</b>	Comité Maghrébin de l'Electricité
<b>CPTPP</b>	Comprehensive and Progressive Agreement for Trans-Pacific Partnership

<b>CSCEC</b>	China State Construction Engineering
<b>CUSMA</b>	Canada-United States-Mexico Agreement
<b>EAC</b>	East African Community
<b>EAPP</b>	Eastern Africa Power Pool
<b>EC</b>	European Commission
<b>ECLAC</b>	Economic Commission for Latin America and the Caribbean
<b>EIB</b>	European Investment Bank
<b>EMnet</b>	Emerging Markets Network
<b>ERP</b>	Enterprise resource planning
<b>ETI</b>	Enabling Trade Index
<b>eWTP</b>	Electronic World Trade Platform
<b>FAO</b>	Food and Agriculture Organization
<b>FDI</b>	Foreign direct investment
<b>FDI</b>	Foreign direct investment
<b>FIRRMA</b>	Foreign Investment Risk Review Modernization Act
<b>FOB</b>	Free on board
<b>FTA</b>	Free trade agreement
<b>FTZ</b>	Free trade zone
<b>GCAP</b>	Consultative Group to Assist the Poor
<b>GDP</b>	Gross domestic product
<b>GEI</b>	Global Energy Interconnection
<b>GEIDCO</b>	Global Energy Interconnection Development and Cooperation Organization
<b>GHG</b>	Global greenhouse gas
<b>GSMA</b>	Global System for Mobile Communications Association, an industry trade body
<b>GW</b>	Gigawatt
<b>IATA</b>	International Air Transport Association
<b>ICA</b>	Infrastructure Consortium for Africa
<b>ICBC</b>	Industrial and Commercial Bank of China
<b>ICT</b>	Information and communications technology
<b>IDB</b>	Islamic Development Bank
<b>IEA</b>	International Energy Agency
<b>IFC</b>	International Finance Corporation
<b>IFI</b>	International financial institutions
<b>ILO</b>	International Labour Organization
<b>IMF</b>	International Monetary Fund

<b>IoT</b>	Internet of Things
<b>IPv4</b>	Internet Protocol version 4
<b>ITeS</b>	Information technology-enabled services
<b>ITF</b>	International Transport Forum
<b>ITM</b>	Industry Transformation Map
<b>ITU</b>	International Telecommunication Union
<b>KFAED</b>	Kuwait Fund for Arab Economic Development
<b>KfW</b>	Kreditanstalt für Wiederaufbau (German Development Bank)
<b>KYC</b>	Know your customer
<b>LAC</b>	Latin America and the Caribbean
<b>M&amp;A</b>	Merger and acquisition
<b>MDB</b>	Multilateral development banks
<b>MENA</b>	Middle East and North Africa
<b>MFN</b>	Most-favoured nation
<b>MIGA</b>	Multilateral Investment Guarantee Agency
<b>MOFCOM</b>	Ministry of Commerce of People's Republic of China
<b>MOOC</b>	Massive open online courses
<b>MW</b>	Megawatt
<b>NAFTA</b>	North American Free Trade Agreement
<b>NDC</b>	National determined contributions
<b>NDCR</b>	National Development and Reform Commission
<b>NEPAD</b>	New Partnership for Africa's Development
<b>NGO</b>	Non-governmental organisation
<b>OBOR</b>	One Belt One Road
<b>ODA</b>	Official development assistance
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>OFDI</b>	Outward Foreign Direct Investments
<b>OFID</b>	OPEC Fund for International Development
<b>OPEC</b>	Organization of the Petroleum Exporting Countries
<b>PACI</b>	Partnering Against Corruption Initiative
<b>PBC</b>	People's Bank of China
<b>PIDA</b>	Programme for Infrastructure Development in Africa
<b>PIT</b>	Personal income tax
<b>PPI</b>	Private participation in infrastructure
<b>PPIAF</b>	Public-Private Infrastructure Advisory Facility

<b>PPP</b>	Public-private partnerships
<b>R&amp;D</b>	Research and development
<b>RCEP</b>	Regional Comprehensive Economic Partnership
<b>RDB</b>	Regional Development Bank
<b>REC</b>	Regional economic communities
<b>REIPPP</b>	Renewable Energy Independent Power Producer Procurement
<b>SAPP</b>	Southern African Power Pool
<b>SDGs</b>	Sustainable Development Goals
<b>SFD</b>	Saudi Fund for Development
<b>SGCC</b>	State Grid Corporation of China
<b>SME</b>	Small and medium-sized enterprise
<b>SOE</b>	State-Owned Enterprises
<b>TDGA</b>	Thailand Digital Government Academy
<b>TeSA</b>	TechSkills Accelerator
<b>TFA</b>	Trade Facilitation Agreement
<b>TFP</b>	Total factor productivity
<b>TPP</b>	Trans-Pacific Partnership (defunct)
<b>TTTFP</b>	Tripartite Transport and Transit Facilitation Programme Eastern and Southern Africa
<b>UIDAI</b>	Unique Identification Authority of India
<b>UN</b>	United Nations
<b>UNCTAD</b>	United Nations Conference on Trade and Development
<b>UNDESA</b>	United Nations Department for Economic and Social Affairs
<b>UNECA</b>	United Nations Economic Commission for Africa
<b>UNSD</b>	United Nations Statistics Division
<b>VAT</b>	Value Added Tax
<b>VET</b>	Vocational education and training
<b>WAPP</b>	West African Power Pool
<b>WEF</b>	World Economic Forum
<b>WTO</b>	World Trade Organization

## EXECUTIVE SUMMARY

The 2019 edition of *Business Insights on Emerging Markets* provides a private sector perspective on investment opportunities and challenges in Asia, Latin America and Africa. This publication brings together analyses and insights from meetings of the OECD Development Centre's Emerging Markets Network (EMnet) and interactions with its corporate members, organised in three regional chapters. The Emerging Markets Institute, Cornell S.C. Johnson College of Business at Cornell University complements this publication with an introductory chapter, providing analysis of Chinese Outward Foreign Direct Investment (OFDI), its internalisation patterns and related policy changes.

### China's international investments facing policy headwinds

Chinese OFDI stock in 2016 stood at 30 times its 2000 level. China has been investing increasingly in Latin America, Europe and the United States with its OFDI representing 11.1% of the world's total flows and 5.9% of the world's total stock. This rapid overseas expansion has propelled Chinese companies to the top of *Fortune* Global 500 rankings. The number grew considerably after the global financial crisis from 20 to 111 Chinese firms in 2008-16. However, China's OFDI fell in 2017 for the first time in 15 years by an estimated 35%. A decline in Chinese outbound acquisitions partly explains the downward trend. At home, the Chinese government's fight against corruption and support for a code of conduct asking private companies investing abroad to avoid high-leverage financing and seek approval for investments in sensitive countries or industries tempered the fervour for acquisitions. Abroad, countries introduced restrictions, including blocking certain acquisitions for security reasons and tightening screening mechanisms particularly for Chinese investments in high-tech and advanced manufacturing industries. Finally, Chinese government policies and guidelines indicate an ongoing search for natural resources, investments in energy, infrastructure and value-added technology sectors.

### Accelerating digitalisation in Asia

Emerging Asia continues to record positive GDP growth rates with 6.6% in 2018 and 6.3% in 2019. The region is leading the development of the digital economy in emerging markets, driven by the expansion of such technologies as blockchain and cloud computing and new business models like e-commerce. The private sector is playing an integral role in promoting these trends and helping countries foster productivity gains and long-term economic development. Consolidating these gains, however, requires further policy action, including incorporating digital trade as an integral element of existing agreements and investing in education. Lack of skills and underdeveloped digital infrastructure can continue to weigh down on private investment. The region needs to address concerns around privacy and digital payments to offer a credible platform that can underpin further business opportunities, particularly in e-commerce.

### **Investment and confidence through stronger institutions in Latin America**

Latin America and the Caribbean's economic outlook has continued to improve after years of slowdown and recession in some of its largest economies. GDP growth of 1.3% in 2017 is projected to reach 2.2% in 2019. This growth potential, however, is tempered by low levels of investment and productivity accompanied with an overall lack of confidence in public institutions. The region needs to renew efforts to recover confidence and enhance investment incentives that can improve the overall business climate. This trend will help consolidate recent gains made by a growing, yet vulnerable, middle class. Providing macroeconomic and political stability, streamlining regulatory processes, and tackling elements of corruption and insecurity, which remain an important concern for businesses and citizens, are key areas for policy action. Public-private dialogue can encourage greater levels of transparency and economic development, which can, in turn, enhance competitiveness and overall productivity.

### **Infrastructure and regional connectivity in Africa**

Growth in Africa is expected to reach 3.8% in 2019, but with disparities partly driven by the degree of dependence on natural resources and the volatility of commodity prices. Despite uncertainties, efforts are underway to promote economic development through enhanced regional connectivity. The signing of the African Continental Free Trade Area (CFTA) in 2018 by 49 African countries is a concrete step forward. The African CFTA can provide firms with better access to and knowledge of regional markets, opportunities to integrate with global value chains, and ways to mitigate business risks. Important reforms supporting the development of quality infrastructure, enhancing transparency and good governance, and facilitating the participation of the private sector in infrastructure projects are also underway. Governments can also contribute to improving digital policies to support e-business opportunities, e-government services, which will in turn help generate investments in developing digital infrastructure and skills. This is especially likely to have particular traction in Africa's growing urban centres,

# 1. China's international investments facing policy headwinds

**Lourdes Casanova**, Senior Lecturer, Director, Emerging Markets Institute at the SC Johnson College of Business, Cornell University

**Anne Miroux**, Faculty Fellow, Emerging Markets Institute at the SC Johnson College of Business, Cornell University

Drawing on longitudinal data from Standard & Poor's Capital IQ and UNCTAD, the article analyses Chinese Outward Foreign Direct Investment (OFDI) and internationalisation patterns to uncover where and how outward flows evolve over time. The analysis also probes the policy changes both at home and in host countries that are challenging China's rapid expansion and how this may change the course it charts in the future.

Key messages include:

- China has become a leading global investor, particularly in Latin America, Europe and the United States. This rapid international expansion has propelled Chinese companies to the top of *Fortune* Global 500 rankings.
- From 2008 to 2016, the estimated value of announced Chinese overseas M&As tripled and between mid-2015 and mid-2016 seventeen of the largest M&A transactions in the world were acquisitions by Chinese firms.
- China's outward foreign direct investments fell in 2017, due to a decline in Chinese outbound acquisitions, domestic policies limiting firm's international expansion and FDI restrictions abroad following a tightening screening of Chinese investments, particularly in high tech and advanced manufacturing industries.
- Government policies and guidelines indicate a continuation in the search for natural resources, investments in energy, infrastructure and value-added technology sectors.

## CHINA'S INTERNATIONAL INVESTMENTS: THE SWIFT RISE

While the rise of China as one of the main destinations of Foreign Direct Investment (FDI) flows has been one of the remarkable trends in global FDI since the 1990s, its recent emergence as one of the key global investors has been no less striking. The surge in its Outward Foreign Direct Investments (OFDI) has been so rapid that while in 2000 China did not yet feature among the top global investors (based on FDI flows), by 2012 it was among the Top Three and ranked either second or third since. By 2016, its OFDI stock was 30 times its 2000 level, second only to the United States. Based on data from UNCTAD (2018), China became a net FDI capital exporter in 2015 for the first time. While the main destination of China's investments remains Asia, its 'natural market' (about 63% of the China OFDI stock), China has been increasingly investing in Latin America, Europe and the United States. Investments are important in Africa as well but they are usually in the form of government loans and not reflected in the OFDI data.

The global financial crisis was a turning point for China's OFDI expansion, which grew by 20% per year on average between 2008 and 2016. This boom was characterised in particular by a significant increase in overseas Mergers and Acquisitions (M&A), especially in 2015 and 2016. According to MOFCOM (2017), by 2016 and 2017, China was ranked second in OFDI stock (accumulated investments). Accordingly, in 2017 China invested USD 158 billion, as the third largest investor in the world after the United States, with USD 342 billion, and Japan, with USD 160 billion. Today, China's OFDI represents 11.1% of the world total flows and 5.9% of the world OFDI stock. According to MOFCOM (2017), there are at least 39 000 companies established in 189 countries with USD 6 trillion of foreign assets. This speedy overseas expansion has propelled Chinese companies to the top of *Fortune* Global 500 rankings (Casanova and Miroux 2018), where the number grew considerably after the global financial crisis, from 20 to 111 Chinese firms (rivalling the 126 from the United States). Given the focus on infrastructure investments, Chinese Engineering and Construction companies now occupy the five-top positions in the industry, with CSCEC ranked first (Box 1.1). Regarding ownership, 67% of those big Chinese companies are partially or totally state-owned (Casanova and Miroux 2018) while 79% of the Americans are publicly traded.

### Box 1.1. China State Construction Engineering (CSCEC)

<http://www.cscec.com>

China State Construction Engineering (CSCEC) operates as an integrated construction and real estate company; it provides general contracting for building, municipal public, and highway works. CSCEC is the largest construction and real estate conglomerate in China. In the Construction and Engineering sector, it is the largest in the world in terms of revenue (see Figure 1.3). A Chinese state-owned company, CSCEC's major projects include public works, offices, hotels, education works, sports facilities, housing, medical works, embassies, industrial works, and national defence and military works. CSCEC is involved in constructing a new proposed capital city in Egypt.

CSCEC is present in both the domestic and international spheres. The company operates in over 20 countries and regions around the world, offering building construction, international contracting, real estate development and investment, infrastructure construction and investment, prospecting and design. China State Engineering utilises one of its subsidiaries, China Overseas Property, to stay active internationally through investment and real estate property development.



Fortune Global 500 2018: #24  
Ownership: State-Owned  
Founded: 1982  
Chairman: Qing Guan  
Industry: Engineering and Construction  
Employees: 270,467  
Revenue: USD 156.07bn  
Assets: USD 239.68bn

*Source: Authors based on data from Capital IQ and 2018 Fortune Global 500 accessed by September 2018.*

Chinese banks have accompanied the international expansion of its construction counterparts, as a result of which, four out of the largest banks in the world by assets are Chinese such as the Industrial and Commercial Bank of China (ICBC), China Construction Bank (CCB), Agricultural Bank of China (AgBank) and Bank of China.

However, in 2017, China's OFDI fell for the first time in fifteen years, by an estimated 35%.<sup>1</sup> A decline in Chinese outbound acquisitions partly explains the downward trend in Chinese OFDI. The policy headwinds are partially behind this, especially in the M&As area, as will be shown in the sections that follow.

## Box 1.2. Industrial and Commercial Bank of China

### The Largest lender in the world

Industrial and Commercial Bank of China Limited (ICBC) provides various banking products and services worldwide.

Founded in 1984, it is headquartered in Beijing. As of 31 December 2016, it operated approximately 16,788 domestic institutions and 412 overseas institutions.

ICBC operates through Corporate Banking, Personal Banking, and Treasury Operations segments. The Corporate Banking segment offers financial products and services to corporations, government agencies, and financial institutions. The Personal Banking segment provides personal loans and cards, deposit-taking, personal wealth management, personal intermediary services, among other services to individual customers. The Treasury Operations segment is involved in money market transactions, investment securities, and foreign exchange transactions, as well as derivatives.

### ICBC (工商银行)

Fortune Global 500 2017: 22nd  
Ownership: Public  
Founded: 1984  
Chairman: Gu Shu  
Industry: Financials  
Employees: 461,749  
Revenue: USD 147.6bn  
Assets: USD 3,473bn (1st)  
Ticker: SEHK (1398)

## AN M&A REVERSAL OR A RETURN TO NORMALCY?

Over the past decade, China has become one of the main global M&A players. In particular, Chinese firms deployed M&A as a significant mode of entry in developed markets. In 2016, China emerged as the second largest global acquirer (behind the United States), with deals on the order of 20% of the M&As of the top 10 countries<sup>2</sup> – a remarkable feat if one considers that China was hardly visible as a global acquirer at the turn of the century. From 2008 to 2016, for instance, the estimated value of announced Chinese overseas M&As tripled. What is more, between mid-2015 and mid-2016, seventeen of the largest M&A transactions in the world were acquisitions by Chinese firms. The United States claimed 15 deals, though in value it remained the number one acquirer in the world. In just ten years, China became a main world player in M&A and the world started noticing.

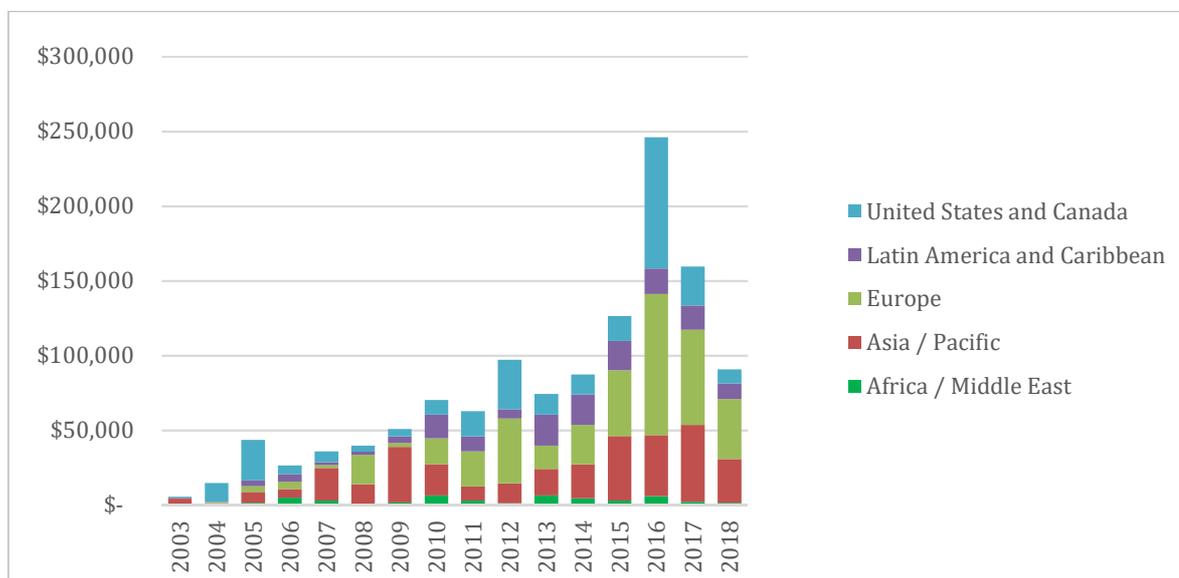
Developed countries were the target of Chinese overseas acquisitions before the global financial crisis (over 50% of the value of Chinese outbound M&As between 2003 and 2008),<sup>3</sup> but the crisis prompted Chinese enterprises to ramp up investments, as they were in a strategic position to take

advantage of the opportunities made available by financially distressed firms in developed markets. By 2012, developed countries accounted for an estimated 80% of the value of Chinese acquisitions. Among developed countries, Europe became the most important destination, amounting to 37% of the value of all transactions from 2015-17 (Figure 1.1). Meanwhile, acquirers increasingly targeted strategically important sectors such as Energy, Industrials, Materials and IT. These sectors accounted for about half of the acquisition value from 2014-17 (Figure 1.2). Due to such widespread acquisitions, many countries feared that their native technology sectors would wind up under foreign control. Back home, the importance of Real Estate acquisitions contributed to the Chinese government's increasing wariness regarding the speculative nature of a number of transactions.

The surge in Chinese outward M&As appears to have slowed down in 2017, relative to the 2016 peak. Indeed, the value of announced M&A deals fell by about 40%, and in turn, by another 44% in 2018.<sup>4</sup> The decline has been particularly acute in the United States where the value of announced Chinese acquisitions dropped by an estimated 70% in 2017 and again by about 65% in 2018 (Standard and Poor's Capital IQ). The dip, while significant, did not prevent China from remaining among the top three global acquirers in 2017 and among the top five in 2018, a performance more in line with M&A values registered in the 2010s (see Figure 1.1).

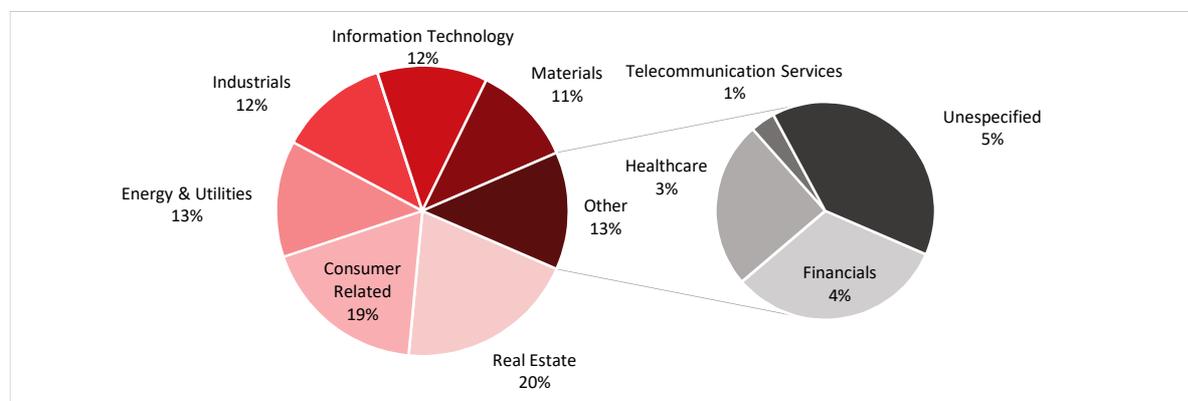
The above-mentioned developments in terms of the geographic and industrial distribution of Chinese outbound M&As, combined with their dramatic surge in 2015-16, prompted policy shifts at home and abroad as shown below. While the observed downward trend may be attributed to a number of factors, including a slowdown in Chinese economic growth and a looming trade war, shifts in the policy environment are also definite contributors.

**Figure 1.1. Destination of Chinese announced outbound M&A value by region 2003-18 (USD millions)**



Source: Authors' analysis based on data on M&A transactions originating from China and Hong Kong, China (USD value in millions) from Standard & Poor's Capital IQ. Accessed in February 2019.

Figure 1.2. Sector distribution of announced Chinese M&A deals (2014-17)



Source: Authors' analysis, based on data from Standard & Poor's Capital IQ (accessed July 2018).

## CHINESE OVERSEAS INVESTMENT FACING POLICY HEADWINDS

Chinese government policies have been instrumental to the country's emergence as a powerful global investor (see e.g. Casanova and Miroux 2017b; Casanova and Miroux 2017a; Casanova and Miroux 2018). While the external environment was relatively open to Chinese investment, including M&As, a recent shift, which was largely prompted by a surge in Chinese overseas acquisitions in the last ten years, was led by a double blow of restrictions both at home and abroad.

### Policy changes at home

Since the 1990s, China's policies on OFDI progressively evolved from restriction to liberalisation then to outright support and encouragement. With the "Go Global" strategy, launched in 2000, a phase of strong support for the expansion of Chinese firms abroad began (Casanova and Miroux 2018 and Casanova and Miroux 2017b). The "Go Global" policy only expanded over time as the government added measures that made it easier for Chinese companies to expand into international markets. These measures included moving past the complex prior approval system towards streamlined approval procedures and simplified application requirements, as well as relaxed restrictions on foreign exchange, among other means of assistance.

Besides the provision of administrative, financial and commercial support to Chinese overseas investors, the country engaged in active investment diplomacy. For instance, Chinese President Xi Jinping visited both Latin America and Africa three times since he took office (Latin America in 2013, 2014 and 2016; Africa in 2014, 2016 and 2018). The Belt and Road Initiative (BRI)<sup>5</sup> launched by President Xi Jinping in 2013 in the name of infrastructure development as well as co-operation through international trade and investment, is bound to fuel China's continued OFDI expansion. In fact, according to MOFCOM 2017, Chinese investments in BRI countries have grown 50% in just five years. To back infrastructure investments in those countries, China created a USD 40 billion Silk Road Fund and deepened its stakes in the Asian Infrastructure Investment Bank (AIIB) along with the BRICS New Development Bank (NDB) with a USD 100 billion allocation for each. The following year, China launched two targeted funds for Latin America: the China LAC Industrial

Cooperation Investment Fund and the China-Latin America Infrastructure Fund. AIIB alone is equivalent to two-thirds of the subscribed capital of the Asian Development Bank and a third of the World Bank.<sup>6</sup>

With the surge in Chinese OFDI between 2015 and 2016, however, concerns began to emerge in China regarding the risk of financial instability as a result of such massive capital outflows. Suspicions also materialised in relation to the motivations for some large acquisitions, in particular those falling outside the buyer's core area of business (e.g. real estate and entertainment). In response, the Chinese government announced in 2016 stricter approval requirements for M&A deals<sup>7</sup> and restricted real estate purchases abroad by State-Owned Enterprises (SOEs). In August 2017, the National Development and Reform Commission (NDCR) issued "guidelines on overseas investment" that classify overseas investments into three main categories: restricted, prohibited and encouraged. Restricted investments included those in real estate, hotels, entertainment, and sport clubs, among others; prohibited investments included those in gambling, 'lewd industries' as well as activities providing access to sensitive sectors. Since the issuance of such guidelines, outbound acquisitions in these two categories virtually halted. On the other hand, investments strengthening "co-operation with overseas high-tech and advanced manufacturing companies"<sup>8</sup> were actively encouraged, as were those promoting the BRI, in line with the "Made in China 2025 Plan" and the overall economic strategy of the Chinese authorities.

By December 2017, NDCR, along with four other agencies, released a code of conduct for private companies investing abroad stating that firms should avoid high leverage financing and stay within their core area of activities, as well as respect local laws, including social and environmental standards. The new guidelines also require firms to report investment plans to the government and to seek approval for investments in "sensitive" countries or industries. While some observers noted that the code of conduct does not consist of hard and fast rules<sup>9</sup>, the warning and increased control of overseas Chinese investors have been made clear.

Meanwhile, the fight against corruption pursued by the Chinese government over the past two years has also tempered the fervour for acquisitions. Financing became harder to obtain. The campaign forced a number of major Chinese investors such as Anbang Insurance group, Fosun, HNA and Dalian Wanda – that were at the forefront of the buying spree during the peak M&A years - to reverse course and sell off overseas assets to reduce debt. The change of attitude led to a wave of divestitures, especially in real estate, hospitality and entertainment in the United States. The Chinese conglomerate HNA, which includes Hainan Airlines, were made to sell off assets, including real estate properties in the United States; Hong Kong, China and Australia, as well as equity stakes in Deutsche Bank, among other firms. Ultimately, while it appears the worst is over, HNA is reported to have sold – or agreed to sell – about USD 20 billion in overseas assets by the end of 2018.<sup>10</sup>

### **Increased control and scrutiny in host countries**

Further obstacles have surfaced as a number of countries have introduced restrictions of their own on acquisitions by foreign investors. Even as mechanisms for screening foreign investments already existed, several developed countries strengthened such mechanisms, partly in response to the wave of Chinese investments in high-tech and advanced manufacturing industries, among other strategic sectors (see section above). In 2017 the German government, wary of acquisitions of high tech enterprises by Chinese firms (such as the purchase of the German robotic manufacturer Kuka by the Chinese Midea in 2016), introduced alterations to its Foreign Trade and Payments Ordinance to ease the blocking of certain acquisitions for security reasons. In addition, in December 2018, the threshold of participation by a non-EU buyer for deals in specific sectors subject to government veto

was lowered to 10%, a move expected to subject more transactions to security reviews by the German government. In June 2018, legislation was introduced to the French parliament to tighten screening mechanisms by extending the scope of sectors under consideration to better protect strategic industries. This legislation was still under review as of early 2019. Following a 2017 Green Paper on National Security and Infrastructure Investment Review, the UK government also introduced legislation in 2018 that would strengthen the state's ability to scrutinise foreign investment in innovative technology sectors on national security grounds. Likewise, in 2018, Australia, a major provider of natural resources to China, tightened sales of agricultural land to foreigners as well as electricity infrastructure.

Meanwhile, Chinese expansion in electricity infrastructure has faced political pushback. State Grid (SGCC, see Box 1.4), the second largest company in the world by revenue has been aggressively internationalising, with the goal to advance the National and International Transmission Expansion. In Brazil, for instance, the current President, Jair Bolsonaro, criticised Chinese investments in their country during his electoral campaign. Furthermore, within the context of this expansion in electricity infrastructure, according to MOFCOM (2017), China National Petroleum Corporation (CNPC, see Box 1.3), the second largest Chinese company measured by accumulated investments abroad (the first one being China Mobile Communications Corporation), is seizing strategic assets over the world.

### Box 1.3. China National Petroleum

<http://www.cnpc.com.cn>

China National Petroleum produces and supplies both oil and gas. It combines production, transportation, and marketing of domestic and international gas and oil. China National Petroleum engages in refining chemicals and oil and gas, pipeline transportation, engineering and technical services, equipment manufacturing, energy financial services, and new energy development. As the largest natural gas producer and supplier in China, China National Petroleum uses a pipeline network of over 85 000 kilometres to distribute oil. The company also offers over 20 000 service stations that serve on average over 20 million clients a day throughout China. These stations provide gasoline, diesel, kerosene and lubricants in urban and rural areas at a rate of approximately 310 000 tons per day.

Headquartered in Beijing, China National Petroleum operates in over 30 countries throughout Central Asia, Russia, Africa, The Middle East, Americas, and Asia-Pacific. China National Petroleum is a State Owned Enterprise that operates through the subsidiary PetroChina, of which it is the sole owner.



Fortune Global 500 2017: #4  
Ownership: State-Owned  
Founded: 1955  
Chairman: Wang Yilin  
Industry: Energy  
Employees: 1,470,193  
Revenue: USD 326bn  
Assets: USD 629.40bn

By February 2019, the European Parliament adopted a framework for screening FDI inflows into the EU in relation to investments in critical infrastructure and technology, in the supply of critical material and in access to sensitive information. This mechanism provides the European Commission the power to request information and to issue opinions to member states regarding whether to approve deals that are likely to affect security and the public order, though the country concerned still makes the final decision. If they choose not to comply with the commission's recommendations, member states are required to justify their decision.

Finally, in August 2018, the United States enacted the Foreign Investment Risk Review Modernization Act (FIRRMA). Considered the most significant overhaul of the Committee on Foreign Investment in the United States (CFIUS) since 1988, FIRRMA expands its jurisdiction and review period. It extends the authority of CFIUS to real estate acquisitions in proximity to facilities sensitive to national security interest, and to minority investments in any US business involved in critical technologies, critical infrastructure or with access to sensitive personal data. It expands the scope of what is included in national security, and includes under critical technologies certain "emerging and foundational technologies" that shall be determined as such by the Departments of Commerce, Defense, and State, and other federal agencies.

#### **Box 1.4. State Grid and China's National and International Transmission Expansion**

China has become a leading player in grid expansion in Asia, driven by its state-owned multinational enterprise, State Grid Corporation of China (State Grid, or SGCC). As the world's largest utility, SGCC has developed ultra-high-voltage (UHV) technology that has facilitated the rapid transmission of renewable energy over long distances. Projected UHV project plans consist of 89 000 km of grid networks by 2020.

These investments will facilitate energy transmission from the resource-rich western provinces to major demand centres in the east, as well as renewable energy investment in rural areas for high-demand manufacturing regions, overcoming the geographic boundaries impeding the government's energy targets for de-carbonisation.

This technology is expected to further integrate China's national and transnational grid. Global Energy Interconnection Development and Cooperation Organization (GEIDCO), an NGO based in Beijing focused on sustainable energy development, aims to promote SGCC's grid and the 5+1 strategy that will connect five grids (Northeast Asian, Southeast Asian, Middle Asian, South Asian, West Asian) to the China grid. This grid interconnection will ease the transmission of clean energy produced in northern China, Mongolia and the Russian Federation to China and Japan as well as increase the development of grid infrastructure in South and Southeast Asia. GEIDCO envisions the creation of similar regional grids across other continents through the creation of development plans, the standardisation of technical requirements and the promotion of international co-operation on research and innovation. These grids could eventually be merged to create a trans-continental "Global Energy Interconnection" (GEI).

Sources: GEIDCO (2016), *Intracontinental Interconnection*, [http://www.geidco.org/html/qgnycoen/col-2015100789/-column\\_2015100789\\_1.html](http://www.geidco.org/html/qgnycoen/col-2015100789/-column_2015100789_1.html); IEA (2016c), *World Energy Investment Report 2016*, OECD/IEA, Paris, <http://dx.doi.org/10.1787/9789264262836-en>; International Electrotechnical Commission (IEC) (2016), *Global Energy Interconnection, White Paper*, <http://www.iec.ch/whitepaper/pdf/iecWP-globalenergyinterconnection.pdf>; The Lantau Group (2016), *UHV Lines: Shaping the Future of China's Power Sector Landscape*, [http://www.lantaugroup.com/files/tlg-china\\_uhv\\_jan16.pdf](http://www.lantaugroup.com/files/tlg-china_uhv_jan16.pdf); Xinhua (2017), "Asian Energy Interconnection Inevitable For Cleaner Future: Chinese Expert", *China Daily*, 18 January, [http://www.chinadaily.com.cn/business/2017-01/18/content\\_27988738.htm](http://www.chinadaily.com.cn/business/2017-01/18/content_27988738.htm).

## IS THIS THE END OR THE BEGINNING OF CHINESE OVERSEAS EXPANSION?

The recent shift in the policy environment – both at home and abroad – has impacted China's outward investment, as illustrated by the dip in Chinese overseas acquisitions in 2017-18. Whether this downward trend will hold in the medium term is yet unclear. One of the reasons is that, whether for the Chinese companies or the Chinese government, the underlying motivations for outward FDI expansion remain. For companies, these include access to natural resources, markets, brands, knowledge and know-how. For large firms, in particular, internationalisation has become an imperative for retaining growth momentum. For the government, in line with its Made in China 2025 Plan, the overall objective is advancing an economy with high value-added sectors and with a strong focus on innovation – as shown by the above mentioned 2017 Guidelines and their “encouraged investment” category. Together, these are powerful forces for the continued outward expansion of Chinese firms. Against this backdrop, we expect shifts in both geographical and sectoral targets, with more investments in BRI countries and, less in Europe and the United States, in the wake of increased restrictions. NDCR guidelines indicate a continuation in the search for natural resources, investments in energy, infrastructure and value-added technology sectors. While SOEs participation in outbound investments has declined (MOFCOM 2017), it still represents 50% of total investments, a privileged position in terms of resources and government support. Ultimately, Chinese outbound M&As are likely to rise in the medium-term, less dramatically but more sustainably.

## Notes

- <sup>1</sup> Based on data from Unctadstats at: <https://unctadstat.unctad.org/wds/ReportFolders/reportFolders.aspx>
- <sup>2</sup> We considered the top 15 investors based on 2017 OFDI flows (based on UNCTAD data) and then analysed their outbound M&A gross data (announced transactions) to find out the top 10 countries by outbound M&A activity.
- <sup>3</sup> Source, Casanova and Miroux 2017a, figure 1.24.
- <sup>4</sup> Based on data from Standard and Poor's Capital IQ, accessed in January 2019.
- <sup>5</sup> The Chinese government launched the Belt and Road Initiative (BRI), formerly known as One Belt, One Road, in 2013. BRI aims to foster integration and co-operation by building infrastructure, developing cultural exchange, and increasing trade among countries in Asia, the Middle East and North Africa along two axes: the Silk Road Economic Belt (essentially the original Silk Road) and the 21<sup>st</sup> Century Maritime Silk Road.
- <sup>6</sup> Based on data on subscribed capital as from the annual reports available at:  
<http://pubdocs.worldbank.org/en/284471507050951684/investor-brief-worldbank-2017.pdf>  
<https://www.adb.org/sites/default/files/institutional-document/411996/adb-financial-report-2017.pdf>  
<https://www.aiib.org/en/about-aiib/financial-statements/index.html#statement>
- <sup>7</sup> In fall 2016, Chinese authorities announced stricter approval requirements for M&A deals worth more than USD 10 billion (or USD 1 billion if the acquisition fell outside the investor's core business area). See *Casanova and Miroux 2017*, Chapter 2, p. 41.
- <sup>8</sup> Source: <https://www.mingtiandi.com/real-estate/china-real-estate-research-policy/china-state-council-circular-on-overseas-investment-full-text/>
- <sup>9</sup> China issues code of conduct for private firms investing overseas. Japan Times, 10 December 2017  
<https://www.japantimes.co.jp/news/2017/12/19/business/china-issues-code-conduct-private-firms-investing-overseas/#>.
- <sup>10</sup> Source: <https://www.bloomberg.com/news/articles/2018-12-12/air-china-group-is-said-to-have-held-talks-to-buy-hna-s-airlines>

## References

- Casanova, L. and A. Miroux (2018), *Emerging Markets Report 2018. Emerging Markets Reshaping Globalization*. S.C. Johnson School of Management. Cornell University, <https://www.johnson.cornell.edu/Emerging-Markets-Institute>.
- Casanova, L. and A. Miroux. (2017a), *Emerging Market Multinationals Report: Emerging Multinationals in a Changing World*. Emerging Markets Institute in collaboration. S.C. Johnson School of Management. Cornell University. <http://bit.ly/eMNCreport>.
- Casanova, L. and A. Miroux (2017b), "The Rise of the Global Chinese Company" in *Business Insights on Emerging Markets 2016*, OECD Emerging Markets Network, OECD Development Centre, Paris, <http://www.oecd.org/dev/oecdemnet.htm>
- NBS MOFCOM (2017), *Statistical Bulletin of China's Outward Foreign Direct Investment 2017*, National Bureau of Statistics, Ministry of Commerce of the People's Republic of China, China Statistics Press.  
<http://unctad.org/en/Pages/DIAE/World%20Investment%20Report/Annex-Tables.aspx>
- Standard & Poor's Capital IQ Database.
- United Nations Conference on Trade and Development (UNCTAD). United Nations. New York and Geneva. UNCTAD data for FDI and OFDI. <https://unctad.org/en/Pages/DIAE/>
- UNCTAD (2018), *World Investment Report 2018: Investment and new Industrial Policies*, United Nations Conference on Trade and Development, United Nations, New York and Geneva.

## 2. Accelerating digitalisation in Asia

This chapter provides insights from the private sector and policy recommendations on how to unlock investment opportunities from digitalisation in Asia. The analysis builds on discussions which took place at the meeting “Accelerating Digitalisation in Emerging Markets”, organised by the OECD Development Centre’s Emerging Markets Network (EMnet) at the OECD headquarters in Paris on 2 March 2018.

Key messages include:

- Asia is leading the growth of the digital economy among emerging markets worldwide and is generating significant opportunities for businesses.
- Technologies such as the Internet of Things (IoT), big data analytics, machine learning, blockchain, cloud computing and artificial intelligence (AI), are driving the digital transformation. Asian countries can take advantage of transformative digital technologies to enhance productivity and achieve sustainable and inclusive growth.
- Cross-border e-commerce offers the private sector important opportunities to expand business internationally. However, trade and investment agreements will need to be updated to accompany such developments.
- Companies see the shortage of skills as a key barrier to the development of the digital economy. Their efforts to invest in skills should be matched by governments’ investments in education combined with public-private partnerships to promote human capital development.
- Infrastructure remains a constraint, although in some Asian countries more than others; more investment is needed to develop information and communications technology (ICT) and digital infrastructure.
- Regulatory problems such as stringent financial licensing agreements, unclear Value Added Tax (VAT) policies and burdensome customs procedures, further limit business expansion.
- Solving issues related to digital payments, digital identity and taxation can accelerate productivity gains.

## ASIA'S ECONOMIC AND BUSINESS OVERVIEW

### The economic outlook for Asia remains strong

Growth in Emerging Asian economies<sup>1</sup> is predicted to remain robust. Gross domestic product (GDP) in Emerging Asia is expected to grow by an average of 6.1% annually over the period 2019-23, according to the *OECD Economic Outlook for Southeast Asia, China and India 2019* (Table 2.1). It is estimated that the ten ASEAN member states will achieve an average economic growth rate of 5.2% from 2019 to 2023, led by Viet Nam and the Philippines. In the Philippines, growth is largely propelled by remittance-based private consumption. Viet Nam has also recorded robust private consumption and has further benefited from an increase in foreign direct investment (FDI) and strong export performance. Within the entire ASEAN bloc, the CLM countries (Cambodia, Lao PDR and Myanmar) are expected to grow the fastest for 2019-23, with annual growth averaging 6.9%, 7.0% and 7.0%, respectively (OECD, 2018a).

Table 2.1. Real GDP growth in Southeast Asia, China and India  
Annual percentage change

Country	2017	2018	2019	2019-23 (average)	2012-16 (average)
<b>ASEAN-5 countries</b>					
Indonesia	5.1	5.2	5.2	5.3	5.3
Malaysia	5.9	4.9	4.8	4.6	5.1
Philippines	6.7	6.4	6.5	6.6	6.6
Thailand	3.9	4.5	4.1	3.7	3.4
Viet Nam	6.8	6.9	6.7	6.5	5.9
<b>Brunei Darussalam and Singapore</b>					
Brunei Darussalam	1.3	2.0	2.3	2.0	-1.3
Singapore	3.6	3.5	2.9	2.7	3.5
<b>CLM countries</b>					
Cambodia	7.0	7.0	6.9	6.9	7.1
Lao PDR	6.9	6.6	6.8	7.0	7.6
Myanmar	6.8	6.6	6.9	7.0	7.3
<b>China and India</b>					
China	6.9	6.6	6.3	5.9	7.3
India	6.7	7.5	7.3	7.3	6.9
<b>Average of ASEAN-10<sup>2</sup></b>					
	5.3	5.3	5.2	5.2	5.1
<b>Average of Emerging Asia</b>					
	6.5	6.6	6.3	6.1	6.8

Source: OECD (2018), *Economic Outlook for Southeast Asia, China and India 2019: Towards Smart Urban Transportation*, <https://doi.org/10.1787/saeo-2019-en>.

## Emerging Asia has regained its position as the world's largest recipient of FDI

Amid a decline in worldwide FDI of approximately 24% from 2016 to 2017, Developing Asia<sup>3</sup> increased its share of global FDI inflows from 25% to 33% during the same period (UNCTAD, 2018). The largest inflows in 2017 were to China (USD 136 billion), which remains the world's second largest recipient after the United States. Indonesia, on the other hand, climbed the rankings to become the 16<sup>th</sup> largest recipient of FDI in 2017, up 475% from USD 4 billion in 2016 to USD 23 billion in 2017 (UNCTAD, 2018). The attractiveness of the region as a whole is expected to remain high. In China, inflows are expected to experience continued growth, as the government enacts reforms to loosen restrictions on foreign ownership of domestic assets across several industries, including automotive and finance (UNCTAD, 2018).

## Asia remains a major source of global FDI, although total outflows have declined

Despite a 9% decline in FDI outflows, from USD 385 billion in 2016 to USD 350 billion in 2017, Emerging Asia still accounted for almost 25% of global outflows in 2017. The region has remained close to this level since 2011. China is largely responsible for the decrease. With its Belt and Road Initiative (BRI), China aims to build connectivity and co-operation across key economic corridors along the ancient Silk Road and beyond, through investments in infrastructure (OECD, 2018b). Despite its cross-border investment ambitions via the BRI, Chinese outward FDI dropped for the first time since 2003, down 36% from USD 196 billion in 2016 to USD 125 billion in 2017 (UNCTAD, 2018). The drop reflects a more selective attitude in the promotion of outward FDI in China. In November 2016, for instance, the People's Bank of China (PBC) released new rules under the heading "Further Clarifications on Overseas RMB Loans by Domestic Enterprises," aimed at reducing outward FDI (Sheng et al, 2016). Conversely, Indian outward FDI in 2017 more than doubled to USD 11 billion, led mainly by the merger and acquisition (M&A) activities of ONGC, India's state-owned oil and gas company.

## Intraregional investment is on the rise as multinationals develop regional value chains

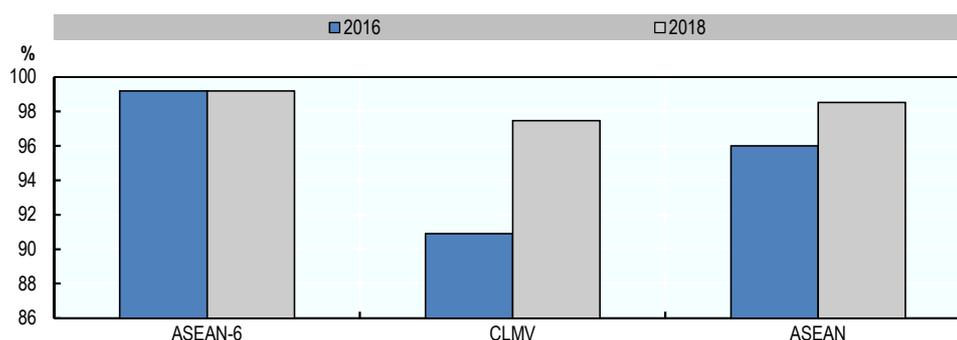
A potential source of strong and sustained capital flows in Emerging Asia is intraregional FDI, where Asian countries are investing in their neighbouring Asian economies. In absolute terms, intraregional FDI increased by 9%, from USD 250 billion in 2015 to USD 272 billion in 2016. It also increased as a share of total FDI inflows into the region, from 48% in 2015 to 55% in 2016 (ADB, 2017). Asian investors are increasingly looking to diversify their regional portfolios, and multinational enterprises (MNEs) from countries such as China, Korea and Singapore are playing a larger role than before. In particular, manufacturers are increasingly looking to gain a competitive advantage in targeted export markets by developing regional value chains. For instance, both Samsung and LG have invested heavily in building manufacturing and assembly plants for their products in Viet Nam since 2014 (UNCTAD, 2018).

## Progress on free trade agreements is promising for regional integration

ASEAN is the world's fourth-largest exporting region, accounting for just 3.3% of global GDP, but producing more than 7.0% of global exports, due to its integration into global value chains (OECD, 2018c). The ASEAN trade block is quite open, not just within the member group, but also with non-

member countries, which are often offered preferential tariffs on a most-favoured-nation (MFN) basis (OECD, 2018c). Among the ASEAN-6<sup>4</sup>, more than 99% of items in the inclusion list have tariffs of 0% (OECD, 2018d). For the Cambodia, Lao PDR, Malaysia and Viet Nam (CLMV countries), approximately 90% of goods had zero import tariffs in 2016, and this was expected to have reached 97.5% by the end of 2018 (Figure 2.1). Furthermore, the Regional Comprehensive Economic Partnership (RCEP) under negotiation is expected to further harmonise the complex web of rules that govern dispute settlement, competition and intellectual property rights, all of which render regional trade costlier. The agreement is to include all ten ASEAN nations and six other Asian-Pacific countries with which ASEAN has existing free trade agreements (FTAs): Australia, China, India, Japan, Korea, and New Zealand (OECD, 2018d). Furthermore, in March 2018, 11 Asia-Pacific countries signed the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), replacing the Trans-Pacific Partnership or TPP after the United States' withdrawal. The CPTPP integrates the region into one of the world's largest free trade zones and includes chapters on liberalising trade in services (Constantinescu et al., 2018). "The e-commerce chapter has broad protections for data created through digital trade and protects the free flow of information across borders, while the government procurement chapter would open government contracts to foreign bidders" (Goodman, 2018).

Figure 2.1. The percentage of items without any tariffs in 2016 and 2018



Source: OECD (2018), *Economic Outlook for Southeast Asia, China and India 2018: Fostering Growth through Digitalisation*, <https://doi.org/10.1787/9789264286184-en>.

Although regional integration has provided reasons for optimism, geopolitical tensions risk pushing Emerging Asia into a retreat from further integration and towards more inward-looking policies (IMF, 2018). Most significantly, 2018 saw a deterioration in the trading relationship between the United States and China. Such conflicts risk inflicting potential collateral damage on other economies across Emerging Asia, particularly those, such as Viet Nam and Malaysia that are highly involved in global value chains and particularly integrated into China's supply chains (Strauss and Romei, 2018). Conflicts can, however, also offer opportunities. For example, shortly after solar panel tariffs were imposed, Chinese manufacturers quickly moved production to Malaysia, the Philippines and Viet Nam. Similarly, some of the largest regional exporters, after China, of electrical machinery,

furniture and lighting, toys and sports equipment to the United States are well positioned to benefit from the trade conflict (Strauss and Romei, 2018).

### **Non-tariff barriers remain prevalent across Asia**

Despite progress on tariff reduction, the World Trade Organization (WTO) reports that the use of non-tariff barriers is becoming increasingly prevalent, and this includes Asian countries. Barriers include sanitary and phytosanitary rules, anti-dumping duties, quantitative restrictions, technical barriers and pre-shipment inspections, among other non-tariff measures (WTO, 2018). Although traditional tariffs have been slashed across the region for ASEAN members and non-member countries alike, non-tariff barriers have risen substantially (ADB, 2017). The cumulative number of measures in effect in Asia has increased from approximately 3 000 in the year 2000 to approximately 10 000 in 2017 (ADB, 2017). Non-tariff barriers increase the cost of trade across the region, hindering the development of global and regional value chains (OECD, 2018d). Furthermore, progress has been slower with respect to regional integration on trade in services. Although protocols covering intellectual property rights were established in the ASEAN Framework Agreement on Services, co-operation currently exists on a “best endeavours” basis only (Constantinescu et al., 2018). In effect, a lack of standardised norms on the protection of intellectual property rights acts as a de facto non-tariff barrier. Optimism nevertheless remains that tangible region-wide progress can be made via the implementation of RCEP (OECD, 2018d). This can become even more pertinent as Emerging Asia strives to establish a fair and competitive regulatory environment for its booming e-commerce activities. These activities are underpinned by software, networks and other support systems and have the potential to transform regional economies, increase productivity and boost GDP (OECD, 2018c).

### **Further regulatory reforms can improve the mobility of labour and skills**

In an era of digitalisation, technological innovation in industries such as agriculture, manufacturing and information and communications technology (ICT) can create new job opportunities. Moreover, new technologies have vast potential to provide more effective and efficient rollout of public services, including healthcare, transportation infrastructure and education (ADB, 2018). Nonetheless, these trends can place low-skilled workers across Emerging Asia at risk of redundancy. A recent study suggests that approximately 14% of jobs across 32 industrial economies, equivalent to 66 million workers, are classified as “highly automatable” (Nedelkoska and Quintini, 2018). Furthermore, another 32% of jobs have a 50-70% risk rate of being significantly changed as a result of automation (Nedelkoska and Quintini, 2018). Regulatory reforms are needed to implement policies that improve the mobility of labour and skills in order to reap the benefits of new technologies. Furthermore, social safety nets in the region could be strengthened in order to protect those who face temporary displacement (ADB, 2018).

In terms, more specifically, of skills development, incentives can be put in place to strengthen digital literacy across the region. The Business and Sustainable Development Commission, a commission created to make a powerful case for why business leaders should work towards achieving the SDGs, expects approximately 230 million jobs to be created in Asia by 2030, yet some workers will simply not have the skills required for them. Consequently, schools and other educational institutions must cater for a rising number, not only of students, but also of adults

seeking to upskill or reskill (ADB, 2018). For China in particular, rapidly rising wages are causing firms to embrace automation, with the country accounting for 30% of global robot purchases in 2016 (ADB, 2018). However, China faces demographic headwinds that are expected to dampen growth (IMF, 2017). China, Thailand, Viet Nam and Malaysia are all experiencing slow demographic growth and a declining working age (15-64 years) population (IMF, 2017). Across the region, the share of the population that is 65 years or older is expected to more than double by 2050 (IMF, 2017). On the contrary, India, Indonesia and the Philippines have some of the youngest populations in the region, and are poised to reap a demographic dividend. This has implications for digital literacy, and thus productivity, in these countries, as more advanced ICT skills are often best developed through exposure at a young age (OECD, 2018d).

## **IMPACT OF DIGITALISATION ON BUSINESSES IN EMERGING MARKETS**

Digitalisation contributes significantly to economic growth in global and emerging markets. Research shows that each additional 10 percentage points of Internet penetration adds 0.77 percentage points to per capita GDP growth in developed countries and 1.12 percentage points in emerging markets (Zhen-Wei Qiang et al., 2009). Furthermore, each additional 10 percentage points of broadband penetration contributes 1.21 percentage points of per capita GDP growth in developed countries and 1.38 percentage points in emerging markets (Zhen-Wei Qiang et al., 2009).

Digitalisation is expanding rapidly in emerging markets, but with disparities. Emerging markets account for almost 90% of the total growth in mobile broadband subscriptions over the past five years (IEA, 2017). However, the development of the digital economy varies across regions. Among Asian countries, the rate of Internet use is around 80% in Singapore, Malaysia and Brunei Darussalam, but closer to 20% in Lao PDR, Myanmar, Indonesia and Cambodia (OECD, 2018d). The size of India's e-commerce market is just 10% that of China (ITU, 2017). Africa, on average, has the world's lowest mobile phone penetration, at 73%, by comparison with 98% in high-income countries.

### **Drivers of digitalisation**

The rapid development of digital technologies and their impact on an economy and a society can be explained by a number of different factors. A closer look at the priorities for national digital strategies shows that the development of broadband infrastructure, the availability of qualified skills, the use of digital technologies in various business activities and the enhancement of public sector services can be identified as key drivers of digitalisation (OECD, 2017a).

#### **Development of broadband infrastructure**

Emerging markets are improving their broadband infrastructure to support digitalisation. In Malaysia, the Telekom High-speed Broadband project increased broadband penetration from 22% to 66% in less than four years (World Economic Forum, 2013). In China, a total of 90 000 kilometres of high-speed fibre-optic trunk cables are to be installed. These were expected to expand broadband

network coverage to all urban areas and to 90% of the countryside by 2018 (Xinhua, 2017). In Africa, the Main One cable system was the first submarine cable to connect West Africa with Europe, bringing open-access broadband capacity to multiple African countries (Purefoy and Kermeliotis, 2012). Meanwhile, the South Atlantic Undersea Cable was expected to have connected Brazilian coast with Angola and Africa by the end of 2018 (Angola Cables, 2018).

### **Availability of qualified skills**

Many emerging markets are putting more effort into developing ICT skills and literacy to support digitalisation. Malaysia, for example, has launched the programme My Digital Maker to teach coding as part of the national school curriculum. The Thailand Digital Government Academy (TDGA) was established to promote the development of digital knowledge of government authorities and public officials in that country. Latin American countries such as Chile, Colombia and Peru have also established programmes to connect schools, build digital literacy, and improve digital skills (Boston Consulting Group, 2012).

### **Use of digital technologies in business**

In OECD countries, it has been estimated that three-quarters of businesses have an online presence and almost as many engage in e-commerce (OECD, 2017b). However, while 75% of consumers across OECD countries have accessed the Internet, only one out of two has made an online purchase (OECD, 2016a). In emerging markets, the penetration of e-commerce is increasing fast. Around 50% of the online population was expected to engage in e-commerce by 2018 (World Economic Forum, 2014). Particularly relevant for emerging markets is the widespread use of digital finance, including mobile wallets, online payments and digital savings accounts. Studies show that this sector could boost the annual GDP of all emerging markets by USD 3.7 trillion by 2025 (McKinsey, 2016a).

In Asia, China leads the sector's growth, with a developed market of third-party payments, deep penetration of digital wealth management products and various innovations in financing methods, such as supply chain financing, consumer financing and peer-to-peer lending (McKinsey, 2016b). Cross-border remittance models have also gained popularity, for example in East and West Africa. Thus, Orange operates an international money transfer service that links Côte d'Ivoire, Mali and Senegal (GSMA, 2016a). Furthermore, the dLocal platform is enabling cross-border e-commerce transactions across Brazil, Mexico and much of Latin America (dLocal, 2018).

### **Digital government services**

The development of digitalisation in emerging markets can be encouraged by its application to government services. According to a recent survey on e-government led by the United Nations, emerging economies such as China, South Africa and many Latin American countries show a high level of e-government development (UN, 2016). Meanwhile, more countries are raising their e-government standards. Thailand, for example, has introduced e-Government Portal to serve as a central information hub that facilitates people accessing public services provided by different government agencies (Bhunia, 2018). India has also launched several e-Governance initiatives,

such as e-Filing for income tax (Government of India, n.d. a) and e-Procurement systems (Government of India, n.d. b).

## Challenges arising from the development of digitalisation

Digitalisation is transforming the way the private sector conducts business in OECD countries, as well as emerging economies. However, a number of challenges exist that can hinder its development and limit the benefits for businesses and society.

Recent OECD analysis highlighted four key policy challenges related to the digitalisation of industrial production: access to ICT infrastructure; barriers to interoperability; issues of liability, transparency and ownership; and digital security and privacy (OECD, 2017b). Many businesses still lag behind in adopting advanced ICTs, such as cloud computing and ERP (enterprise resource planning), due to proprietary issues and data security concerns (OECD, 2017b). In 2016, only 20% of businesses had adopted cloud computing, and fewer than 10% had adopted big data analytics (OECD, 2017a). Lack of interoperability and regulatory barriers in mobile communications markets can impede the development of the Internet of Things (IoT) (OECD, 2017a). Poor data quality, disruptive factors in the environment, misuse of data and security breaches are major digital issues impeding the development of digitalisation (OECD, 2017a). Digital risk and lack of trust can also prevent businesses and consumers from adopting digital technologies and applications.

Some policy initiatives can help overcome these challenges. Close co-operation between the private and public sectors is recommended as a means to close the digital divide in emerging markets. In Malaysia, the government co-operated with Alibaba to launch the first Digital Free Trade Zone, which promoted digital capabilities and encouraged cross-border e-commerce (MDEC, 2017). Digital infrastructure can also be used to enhance local public services. Under the national strategy, Digital New Silk Road, China is incorporating digital sectors into international trade routes. It has directed effort into the development of “smart cities” through innovative services for citizens, such as barcodes for accessing city information and facial recognition software for bus fare collection (Brown, 2017).

## Digitalisation in Emerging Asia

Growth in Emerging Asian economies is expected to remain robust. In this positive context, the development of digitalisation can further facilitate business activities, promote international trade and boost productivity in the manufacturing and service industries.

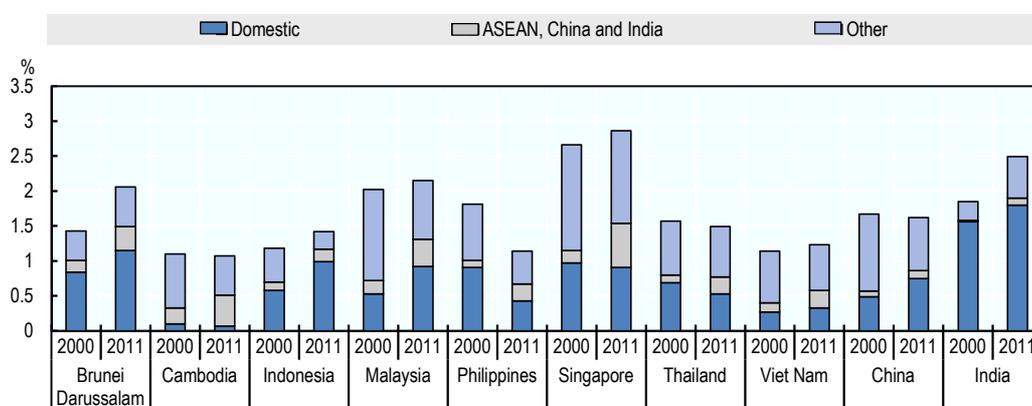
### Business activities

In the manufacturing industry, digital technologies provide new solutions for production, communication, supply chain management and customer relationship management. In the service sector, ICT has made services more storable, transportable and tradeable. In Viet Nam and China, for example, more than 80% of manufacturing and service firms use e-mail to communicate with clients and suppliers (OECD, 2018d).

## Trade

ICT products have been among the most dynamic components of trade in Emerging Asia. In most of the region, especially India, Brunei Darussalam and Indonesia, there was a noticeable growth in computer and telecommunications services embodied in manufacturing exports between 2000 and 2011. Emerging Asia is relatively important as a source of foreign inputs that feed into constituent countries' own exports (see Figure 2.2); higher regional integration could further enhance the potential of trade.

**Figure 2.2. Computer and telecommunications services embodied in manufacturing exports as a percentage of gross exports, 2000 and 2011**

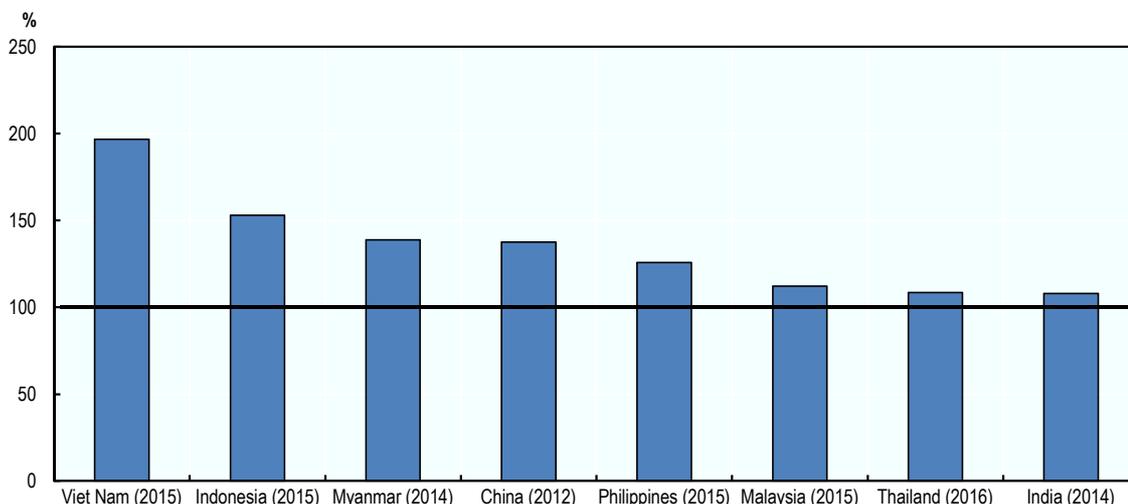


Source: OECD (2018), *Economic Outlook for Southeast Asia, China and India 2018: Fostering Growth through Digitalisation*, <http://dx.doi.org/10.1787/9789264286184-en>.

## Productivity

Digital technologies are a key factor in enhancing business productivity by improving flexibility, transparency and market competition, while reducing the costs of production and inventory management. It has been calculated that firms with ICT use had, on average, 197% of the total factor productivity (TFP) level of other businesses in Viet Nam, 153% in Indonesia, 139% in Myanmar, and 139% in China (see Figure 2.3). TFP can be considered a measure of technology growth and efficiency or of the productivity growth that cannot be explained by capital or labour.

Figure 2.3. Average TFP in manufacturing firms with ICT use as a percentage of average TFP in firms without ICT use



Note: Average TFP in firms with websites and/or using e-mail is presented as a percentage of the average TFP of firms using neither technology. The figure 100% represents no difference in the average productivity of these two groups. Cambodia and Lao PDR were excluded from this analysis, since they contained too few observations with sufficient data.

Source: OECD (2018), *Economic Outlook for Southeast Asia, China and India 2018: Fostering Growth through Digitalisation*, <http://dx.doi.org/10.1787/9789264286184-en>.

### Regional common challenges in Emerging Asia

Many countries in Emerging Asia have achieved significant growth in digitalisation. China is outpacing other countries in the region through massive investments in 4G infrastructure, competitive mobile handset marketplaces, numerous popular mobile services (e.g. WeChat, Sina Weibo and Taobao) and leading technologies in artificial intelligence (AI) (Chakravorti and Chaturvedi, 2017). In Viet Nam, information technology-enabled services (ITeS) such as software services and business process outsourcing (BPO) are growing. In the Philippines, knowledge process offshoring, a movement from BPO into higher value-added activities based on research and information gathering, is becoming more common (OECD, 2018d).

However, the level of digitalisation varies across the region. In Indonesia, problems such as a lack of quality ICT infrastructure, high Internet prices and a shortage of skilled workers are limiting the benefits of digitalisation. In the Philippines, slow Internet broadband speed and challenges in online payments that affect the development of the e-commerce sector are having a similar effect. Thailand needs to improve infrastructure and ICT skills to catch up with its neighbours in terms of business competitiveness. In Viet Nam, the growth of the e-commerce sector has been slowed down by security concerns. Cambodia, Lao PDR and Myanmar still need to develop their basic ICT and digital infrastructures. Despite disparities in access to digital technologies, some regional common challenges can be identified (OECD, 2018d).

### **Policy restrictions on investment and trade pose challenges to digitalisation**

Restrictions on FDI and trade in goods and services remain relatively high in Emerging Asia. In Malaysia, the Philippines, Viet Nam and China, restrictions on FDI in the communications sector are more stringent than the overall national averages across all sectors. In China, India and Indonesia, telecommunications and computer services face greater trade restrictions than the OECD average, according to the OECD Services Trade Restrictiveness Index. Countries also face regulatory challenges relating to the protection of intellectual property rights on traded digital goods and services (OECD, 2018e).

### **Underdeveloped infrastructure constrains the development of the digital economy**

Relative to population, India, Indonesia, Cambodia, Lao PDR and Myanmar have fewer secure Internet servers than Singapore and other Emerging Asian countries, less high-speed broadband Internet (with the exception of Indonesia), and relatively high Internet prices (together with the Philippines). High-speed connections are particularly rare in India and the Philippines. Furthermore, the price of fixed broadband exceeds the affordability threshold of 5% of gross net income in several countries, including in India, the Philippines, Indonesia, Lao PDR, Cambodia and Myanmar (OECD, 2018d).

### **Shortage of skilled workers and digital literacy can limit the progress of digitalisation**

According to a survey from the National Statistical Office of Thailand, lack of knowledge is the principal reason limiting the use of Internet by the population. In Indonesia, a country that aims to become the largest digital economy in Southeast Asia, the availability of qualified skills remains a serious issue for the ICT sector, mainly because of low tertiary education enrolment rates (OECD, 2018d).

## **BUSINESS INSIGHTS ON DIGITALISATION: COMMON CHALLENGES AND EVOLVING OPPORTUNITIES**

Emerging Asia is leading the growth of the digital economy in emerging markets worldwide. Growing connectivity and a rapid expansion of digital technologies such as e-commerce, digital financial services and e-governance have opened up numerous opportunities for businesses in the region, while public authorities can further improve the business environment through trade agreements, investment policies and regulatory frameworks.

This section features insights from representatives of the private sector who participated in the EMnet Asia meeting held in Paris on 2 March 2018. It explores business opportunities and challenges associated with digitalisation in the region, and provides policy recommendations to unlock more private investment.

### **Digital technologies can spur productivity growth and innovation**

Businesses agree that digital innovation is expected to transform the global economy at large, but also the way the private sector operates. New technologies are transforming business

operations and are pushing manufacturers towards the next production revolution, which will have a significant impact on productivity, skills, income distribution, well-being and the environment (OECD, 2017b). IoT, big data analytics, AI and blockchain (see Box 2.1 for definitions) are key components of this transformation (OECD, 2017a).

### Box 2.1. Terminology for digitalisation

The **next production revolution** refers to the use of recent, and often interconnected, digital technologies in industrial production that enable new and more efficient processes and which, in some cases, yield new goods and services (OECD, 2017b).

The **Internet of Things** (IoT) comprises devices and objects whose state can be altered via the Internet, with or without the active involvement of individuals. It includes objects and sensors that gather data and exchange these with one another and with humans (OECD, 2017b).

**Big data analytics** is a set of techniques and tools used to process and interpret large volumes of data that are generated by the increasing digitisation of content, greater monitoring of human activities and the spread of the IoT (OECD, 2017b).

**Artificial intelligence** (AI) is a technology that enables machines to perform human-like cognitive functions (OECD, 2017b).

**Blockchain** is a decentralised and disintermediated technology that facilitates economic transactions and peer-to-peer interactions (OECD, 2017b).

**Cloud computing** is a centralised provision of IT infrastructure and software to end users over a network (OECD, 2014). It is also a key underlying technology supporting the advance of the Fourth Industrial Revolution (IBM, 2018). One of the primary benefits of the modern public cloud – especially for companies in emerging markets – is the democratisation of IT effect, where small and start-up companies can benefit from accessing the same IT infrastructure that was previously only accessible to the largest multinationals with capacity to invest in large physical plants (Assante et al., 2016).

The OECD has calculated that the adoption of the Internet of Things can reduce production costs by more than 25% (OECD, 2017a). Moreover, a study by Microsoft and IDC Asia/Pacific predicts that the digital transformation could contribute more than USD 1 trillion to the GDP of the Asia-Pacific region by 2021 (Jimenez, D. Z. et al., 2018). The same study indicates that 60% of Asia-Pacific's GDP will be derived from digital products by 2021 (Jimenez, D. Z. et al., 2018).

In the long term, three-dimensional (3D) printing, machine learning and enhanced connectivity are expected to have an even bigger impact, as they can further elevate business performance across functions (IEA, 2017). It has been estimated that digitalisation in inventory management, through 3D printing, deep learning and real-time supply chain optimisation, could decrease the cost of inventory holdings by 20-50%, while data analytics could increase forecasting accuracy by up to 85% in matching supply with demand (McKinsey, 2016c).

Finally, digitalisation can enable companies to optimise customer services towards immediacy, personalisation and convenience. E-government services present great potential for the public sector to improve the quality and efficiency of service delivery to businesses and individuals. Governments can take advantage of digital technologies to enhance the efficiency of administration and prevent tax fraud and corruption (OECD, 2016b). In the agriculture sector, agricultural training made available online can enhance the productivity of small farms in emerging markets (FAO,

2012). In India, for example, the government's launch of the Digital Green project in several states, providing training videos and learning sessions online with the aim of improving agricultural practices, has reached 110 000 farmers in more than 1 100 villages (FAO, 2012). In addition, social benefits can be delivered directly to the bank accounts of citizens by way of digital platforms, as a means of enhancing efficiency and transparency (OECD, 2016b).

### **Asia is at the forefront of digitalisation**

EMnet meeting participants highlighted the important progress made by the region in adopting digital technologies. Asia is home to many top AI technology companies. Research and development (R&D) corporations headquartered in Japan, Korea, Chinese Taipei and China have together contributed to about 70% of all AI-related patents obtained by the world's 2 000 top corporate R&D investors and their affiliates, while US-based companies accounted for just 18% of the total (OECD, 2017c). Among Emerging Asian countries with influential AI start-ups, China is at the forefront of developments. The SenseTime Group, which focuses on facial recognition technology, has tripled its worth in less than a year, after raising USD 600 million initially, and was valued at more than USD 3 billion. It is now recognised as the world's most valuable AI start-up (Bloomberg News, 2018).

Multinational companies are also increasing their investment in Asia. For example, Visa is to open a new global transaction processing facility in Singapore. The facility will increase the speed, resilience and geodiversity of the company's infrastructure, and support rising demand for digital payments (Visa, 2017). Oracle plans to open a new data centre in India. The facility will help the company to expand its cloud services and meet customer demand (Oracle, 2017). Intel has opened a new data centre in the Zizhu Digital Creativity Hub in Shanghai, China, to focus on the growth of cloud services and IoT (Yiyao, 2016).

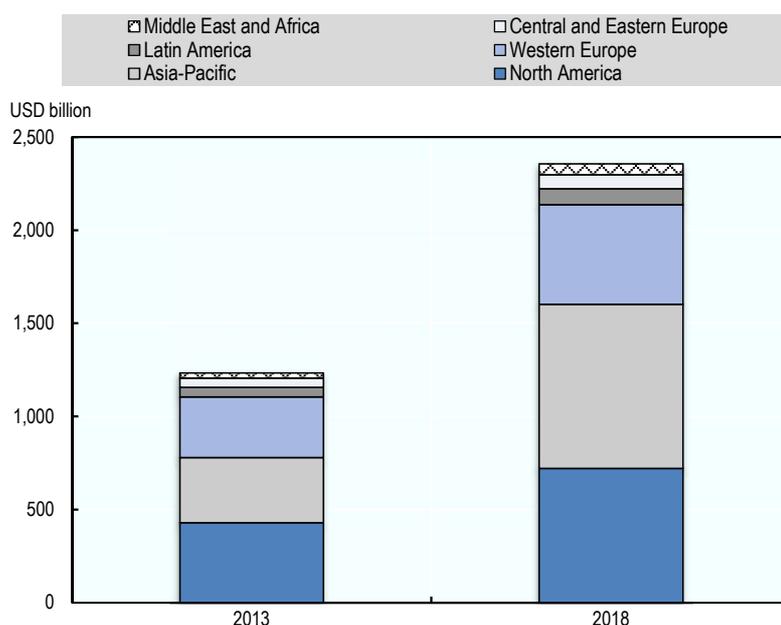
### **Digitalisation offers access to new markets**

Digitalisation can substantially lower market entry barriers, enabling companies to tap into markets that would otherwise be inaccessible. Reduced transaction and delivery costs, greater proximity to consumers and greater diffusion of information allow firms to bring new products and services to new and untapped markets. E-commerce was particularly mentioned as a sector with significant opportunities for growth in emerging markets (Figure 2.4). The Asia-Pacific region is expected to achieve the fastest growth in e-commerce sales, with its share of the global market estimated to grow from 28% in 2013 to 37% in 2018. By comparison, the combined share of Western Europe and North America is forecast to decline, from 61% to 53% (OECD/WTO, 2017).

China, as the world's largest business-to-consumer (B2C) e-commerce market and the third-largest business-to-business (B2B) market, has witnessed the emergence of world-leading e-commerce firms such as the Alibaba Group and JD.com (OECD/WTO, 2017). The Alibaba Group, especially, has expanded its international presence beyond China through large investments in both developed and emerging e-commerce platforms overseas. For instance, Alibaba has acquired and invested USD 4 billion in the Southeast Asian e-commerce giant Lazada, based on the prospect of strong regional growth (Hsu, 2018). In this deal, Lazada provides Alibaba with unrivalled access to Southeast Asian markets, which had a population of more than 600 million comprising of 230 million

“online engaged consumers” in 2017 (OECD, 2017d), in countries such as Indonesia, Malaysia, the Philippines, Singapore, Thailand and Viet Nam (GSMA, 2017a). In India, competition for the lucrative e-commerce market is heating up, especially after the traditional wholesale giant Walmart acquired Indian e-commerce company Flipkart in a deal valued at USD 16 billion, the world’s biggest e-commerce acquisition. Flipkart is a strong local competitor to Amazon. Walmart’s acquisition enables the retail giant to access Flipkart’s large Indian customer base and logistics system, while expanding its offline presence in the retail industry (Roy, 2018).

Figure 2.4. **B2C e-commerce sales worldwide, by region, 2013 and 2018**



Source: OECD/WTO (2017), *Aid for Trade at a Glance 2017: Promoting Trade, Inclusiveness and Connectivity for Sustainable Development*, [http://dx.doi.org/10.1787/aid\\_glance-2017-en](http://dx.doi.org/10.1787/aid_glance-2017-en).

Cross-border e-commerce platforms provide opportunities for micro, small and medium enterprises and individuals to access foreign markets and participate in international trade (Box 2.2.) (AliResearch, 2017). The share of cross-border e-commerce is estimated to be higher on average in emerging markets than in developed countries. In 2014, 42% of European enterprises selling online made cross-border sales to other European countries and 25% made online sales to non-European countries (OECD, 2017c). In 2013, more than half of all e-commerce in both India and Singapore was cross-border (OECD/WTO, 2017).

### Box 2.2. China's experience in cross-border e-commerce

Regulatory frameworks in oversight processes play a major role in the growth of e-commerce. China's bonded model for cross-border e-commerce is an example of policy. In July 2014, China's General Administration of Customs created a new customs supervision code for "Bonded Cross-border E-commerce" (Code 1210). So far, the bonded warehouse model and the direct shipping model have become the two most common ways of dealing with e-commerce logistics in exporting goods into China.

In the **direct shipping model**, the foreign merchants can deliver goods directly to Chinese consumers through international logistics. Quarantine inspection will take place as the goods arrive at the border. Consumers have to wait longer (usually 7-30 days) for delivery, as the goods have to go through more complicated customs clearance processes. Consumers have to pay duties when ordering goods.

Under the **bonded warehouse model**, foreign retailers can set up local warehouses in a "bonded zone" in China, a special trade zone with special duty and inspection approaches. The retailer can store a large quantity of goods without paying duties, giving more flexibility on duties than direct shipping. Once consumers place an order, the foreign sellers can declare the order to customs and ship the goods through local logistics platforms after inspection.

Currently, the bonded model is used by Chinese e-commerce platforms such as Tmall Global (Alibaba), JD.com, Kaola (NetEase) and Suning.com. Chinese cities such as Chongqing, Guangzhou, Shanghai and Hangzhou have accepted the bonded warehouse model. It is worth noting that some US e-commerce companies, such as Amazon, Gilt Groupe, 6PM and iHerb, prefer on the other hand to use the direct shipping model.

Source: AliResearch (2017), *Inclusive Growth and E-commerce: China's Experience*, <http://i.aliresearch.com/img/20170630/20170630151728.pdf>;

TMO Group (30 March 2016), "Cross border ecommerce logistics in China: Bonded zone or direct shipping?", <http://www.tmogroup.asia/cross-border-ecommerce-logistics-in-china-bonded-zone-or-direct-shipping/>.

### Digital technologies can help companies achieve productivity gains

EMnet meeting participants agreed that digital technologies can help companies improve efficiency and achieve productivity gains. There is evidence that businesses adopting advanced ICTs spur innovation and enhanced productivity, and increase their market share (OECD, 2016b). National economies benefit from digital technologies too. Digital finance serves as a key driver of productivity growth and competitiveness and has great potential to boost the GDP of emerging economies (McKinsey Global Institute, 2016a). It is estimated that more than two-thirds of the contribution to the predicted GDP growth from digital financial services will be attributable to increased productivity (McKinsey Global Institute, 2016a).

Both the public and private sectors can improve productivity by enhancing their capacity to adapt to, and utilise, digital transformation. Companies agree that transforming their business models from vertical integration to open structures with more collaboration with external partners can lead to an increase in R&D activity, while reducing operational costs. Global energy company Total, for example, launched a digital and innovation lab called Booster, a 700 m<sup>2</sup> space dedicated to encouraging synergy between the different business lines of Total and incubating innovative ideas from start-ups. Selected start-ups can come to the Booster lab to pitch and subsequently contact operators of industrial sites to put their innovating digital technologies into testing and implementation. French energy company, ENGIE, is incubating the ideas of internal employees, launching calls for projects involving innovative solutions, and investing in technology start-ups, through a fund of EUR 165 million (ENGIE, n.d.). The public sector can also offer critical support in

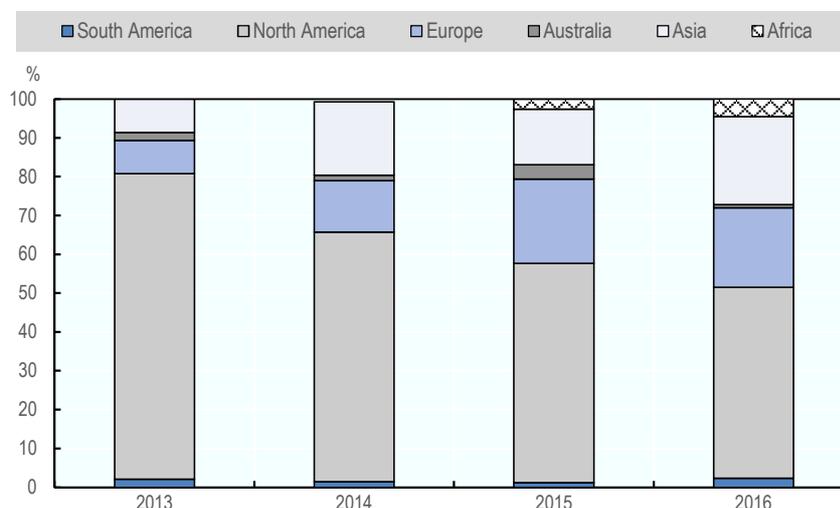
promoting digital innovation. The government of Singapore began rolling out Industry Transformation Maps (ITMs) in 2016, to help 23 key sectors of the economy explore new digital opportunities.

### **Digital finance is becoming increasingly critical for emerging markets**

Mobile money, a mobile phone payment solution, is a key tool in the move towards cashless economies that provides a service for the unbanked, and promotes financial inclusion (GSMA/Deloitte, 2015). More people in sub-Saharan Africa use mobile money than do traditional bank accounts (GSMA/Deloitte, 2015). Mobile money also has the potential to shape consumer behaviour and accelerate digitalisation. Emerging Asia is expected to lead the growth of digital banking, given its high growth rates and high user uptake (Ortiz, 2018). Furthermore, a recent study by Microsoft showed that 81% of financial service companies across the Asia-Pacific region agreed that going digital would lead to greater revenue growth for their businesses (Microsoft, 2017).

EMnet meeting participants agreed that Emerging Asia is likely to become a leader in blockchain development, due to government and regulatory support and the mobilisation of capital from both industry players and venture capitalists (IFC, 2019). The annual deal share of bitcoin and blockchain is shrinking in North America and Europe by comparison with Asia and Africa, where both continents have seen their share increase over recent years (Figure 2.5). The traditional banking sector has started experimenting with blockchain technology, motivated by the prospect of cost reductions. For instance, the Postal Savings Bank of China has tested a blockchain-based asset custody system in collaboration with IBM and Hyperledger (IFC, 2019). Large Internet players are incorporating blockchain into their business models. These include Ant Financial (a subsidiary of Alibaba) that is introducing a bitcoin mobile wallet (IFC, 2019), and Tencent, a Chinese multinational which launched the TrustSQL platform using blockchain technology to offer digital asset management, authentication and 'shared economies' (Tencent Cloud, 2018). In India, multinational Mahindra & Mahindra Group has developed a blockchain-based application with IBM to facilitate supply chain finance processes and enable more suppliers to access credit in India (Mahindra, 2016).

Figure 2.5. Bitcoin and blockchain annual deal share by continent 2012-16



Source: IFC (2019), *Blockchain Opportunities for Private Enterprises in Emerging Markets, Second and Expanded Edition*, [www.ifc.org/wps/wcm/connect/8a338a98-75cd-4771-b94c-5b6db01e2797/IFC-EMCompass-BlockchainReport\\_WebReady.pdf?MOD=AJPERES](http://www.ifc.org/wps/wcm/connect/8a338a98-75cd-4771-b94c-5b6db01e2797/IFC-EMCompass-BlockchainReport_WebReady.pdf?MOD=AJPERES).

### Progress is needed to promote inclusive digitalisation

Affordability and accessibility are critical elements in ensuring that the digitalisation process is inclusive, that it enhances ICT usability and that it attracts more private investment. For instance, e-commerce relies heavily upon affordable mobile communications and access to broadband Internet (OECD/WTO, 2017).

Facilitating access to financial services is key to the development and inclusive adoption of digital finance. In this context, creating national digital ID systems can be an important step in facilitating financial accessibility (GSMA, 2017b). India, for example, has successfully registered 94% of the total population through its national digital identity programme, Aadhaar (GSMA, 2017b). Based on a demand-driven model, the Aadhaar initiative (see Box 2.3) aims to provide a permanent identity number to all Indian residents without discrimination.

### Box 2.3. The Success of India's Aadhaar initiative

Aadhaar ID is a national digital identity programme designed and managed by the Unique Identification Authority of India (UIDAI). Established by the Indian government in 2008, its goal is to provide each citizen of India with an identity number, called an Aadhaar number. The success of Aadhaar was possible through the combined effort of the public and private sectors. The UIDAI mainly focuses on providing technical standards, while relying on third parties for data collection, including state governments, public services agencies, banks, telecom companies, insurance companies and others. After the collected biographical and biometric data are verified by the UIDAI, a digital identity is created and a unique Aadhaar number is assigned to the individual.

Aadhaar is used by the government to pay out subsidies and social welfare benefits. Private organisations are also taking advantage of Aadhaar to provide bank transaction services, activate new mobile phones, and facilitate many other processes in a manner that improves efficiency and reduces compliance costs. For instance, the Aadhaar-enabled e-KYC platform, which is used to digitally authenticate new customers, reduces the cost of the know-your-customer (KYC) process from INR 40 (Indian rupees) (USD 0.60) per customer to INR 5 (USD 0.07) for mobile providers. More than 1 billion bank accounts and mobile phones have been connected to Aadhaar. Aadhaar also promotes financial inclusion. In the state of Rajasthan itself, since the launch of Aadhaar, the proportion of women with bank accounts has increased from 44% to 90% in 2018.

*Source: GSMA (2017b), Aadhaar: Inclusive by Design – A Look at India's National Identity Programme and its Role in the JAM Trinity, [www.gsma.com/mobilefordevelopment/wp-content/uploads/2017/03/gsma-aadhaar-report-270317.pdf](http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2017/03/gsma-aadhaar-report-270317.pdf); World Bank (2016), Digital Identity: Towards Shared Principles for Public and Private Sector Cooperation, <http://documents.worldbank.org/curated/en/600821469220400272/pdf/107201-WP-PUBLIC-WB-GSMA-SIADigitalIdentity-WEB.pdf>; OECD (2018f), Embracing Innovation in Government: Global Trends 2018, [www.oecd.org/gov/innovative-government/embracing-innovation-in-government-2018.pdf](http://www.oecd.org/gov/innovative-government/embracing-innovation-in-government-2018.pdf).*

On a global scale, the ID2020 Alliance is a partnership with a similar objective, namely to improve lives through digital identity. In this alliance, governments, non-governmental organisations (NGOs) and private sector parties collaborate to ensure that technology is used for birth registrations, vaccinations, voter registration and national ID cards, in line with the Sustainable Development Goals – specifically SDG 16.9 – providing legal identity for all by 2030 (ID2020, n.d.; UN, n.d.).

Finally, the absence of a legal identity among disadvantaged groups is a major obstacle in accessing digital services. This is due to the difficulty for financial institutions of achieving compliance with anti-fraud requirements when attempting to verify the identity of customers seeking to open an account. About 1 billion people worldwide still do not have a legal identity. Approximately 31% of these are based in South Asian countries, especially in India and Bangladesh (World Bank, 2018). Some ASEAN countries, including Indonesia, Myanmar, Thailand and the Philippines, also have large unregistered populations. In particular, 32% of the population of Myanmar lack a legal identity (World Bank, 2018).

### Digital infrastructure is a key enabler of connectivity

EMnet meeting participants highlighted how infrastructure remains one of the main barriers to the development of the digital economy. Limited accessibility of enhanced mobile and fixed broadband infrastructure was singled out as a primary constraint, particularly in rural areas.

## Upgrading infrastructure is necessary in order to accelerate digitalisation

Participants emphasised the need to develop and upgrade infrastructure to accompany the exponential growth of data traffic volumes, and boost connectivity (Figure 2.6).

Figure 2.6. IPv4 addresses by broadband connection speed in Emerging Asia, Q1 2017

Country	Percentage above 4 Mbps	Percentage above 10 Mbps	Percentage above 15 Mbps
Indonesia	76 (71)	18 (68)	5 (69)
Malaysia	72 (80)	32 (52)	14 (52)
Philippines	39 (107)	11 (78)	6.2 (63)
Singapore	94 (17)	72 (4)	51 (6)
Thailand	97 (4)	72 (5)	43 (13)
Viet Nam	86 (49)	37 (48)	11 (57)
China	81 (59)	20 (62)	5 (70)
India	42 (104)	19 (64)	10 (58)
<b>World average</b>	<b>82</b>	<b>45</b>	<b>28</b>

Note: The number in the brackets indicates the country's global ranking.

Source: OECD (2018d), *Economic Outlook for Southeast Asia, China and India 2018: Fostering Growth through Digitalisation*, <http://dx.doi.org/10.1787/9789264286184-en>.

Compared with urban areas, where market competition and infrastructure investments are concentrated, rural areas lag behind in terms of quality of ICT infrastructure and access to digital services such as e-government. This infrastructure gap can also limit Small and Medium Enterprises' (SMEs') access to e-commerce platforms and their trade expansion strategies (OECD/WTO, 2017).

## ICTs have emerged as an important source of energy consumption

Inadequate power supply is also a common infrastructure bottleneck. ICTs, including data centres, data transmission networks and connected devices, have emerged as an important source of energy consumption, calling for a more efficient use of energy. The IEA estimated that data centres worldwide consumed about 1% of total electricity demand in 2014, while data centre workload is forecast to triple by 2020, related electricity use is expected to grow by 3%. The power consumption of data transmission networks, which it was estimated would take up 1% of worldwide electricity demand in 2015, could either increase by 70% or fall by 15% by 2021, depending on the efficiency of energy usage (IEA, 2017). By 2020, more than 20 billion IoT devices will be connected and nearly 6 billion smartphones are expected to be online, demanding a significant additional supply of electricity (IEA, 2017).

Promoting the efficient use of energy is an important way to cope with rising electricity demand. Industry players – such as device manufacturers and network and data centre operators – and governments both have a role to play. For instance, outsourcing services to upgrade to larger cloud

and hyper-scale data centres can lead to a more efficient distribution of energy (IEA, 2017). Governments can play a key role by developing policies, offering incentives or entering voluntary agreements with the private sector to encourage the efficient and sustainable development of ICTs and promote the use of renewable energy (IEA, 2017).

### **5G will create new opportunities**

5G technology, the next generation of wireless mobile networks, has the potential to increase opportunities for IoT developments and to enhance the capacity and speed of mobile networks. Countries such as China and India are paving the way for 5G development, where leading telecom companies have been pushing the process to capture a first mover advantage. From a planned launch in 2020, the Global System for Mobile Communications Association (GSMA) forecasts that Chinese 5G connections will scale rapidly over time, reaching 428 million connections by 2025 (Dewar et al., 2017). China Mobile, China Telecom and China Unicom, the three largest mobile operators in China, target 2020 for the commercial launch of 5G services (Dewar et al., 2017). China Telecom has started trials in Guangdong province (Dewar et al., 2017). Huawei, a leading Chinese multinational telecom and consumer electronics company, has partnerships with European automobile manufacturers Audi, BMW and PSA to develop 5G-based connected car technologies (Huawei, 2017). The Indian multinational telecom company Bharti Airtel has successfully conducted India's first 5G network trial with Huawei (Khan, 2018). It is estimated that the application of 5G technology can translate into USD 27.3 billion of revenues for India's telecom operators by 2026 (Khan, 2018). In Southeast Asia, growth is accelerating in 4G markets in Malaysia, Indonesia, Myanmar and the Philippines; these countries will likely see future potential for the deployment of 5G (GSMA, 2017c).

The healthcare sector offers new applications for 5G technology. In the healthcare industry, life-critical medical functions often require high reliability, with downtime of no more than a few milliseconds. 5G technology can make this a reality, as it can allow for connectivity speeds of up to 10 gigabits per second. Microsoft believed this would enable breakthrough innovation, such as continuous monitoring through multisensory environments, teleporting doctors to virtual environments for tele-interactions with their patients, the performance of technology-enabled remote robotic surgeries, or using AI to generate new medical insights.

### **Public-private dialogue to enhance digital infrastructure**

EMnet meeting participants agreed that concerted efforts are needed between public and private sector actors in order to strengthen digital infrastructure. Governments in emerging countries are increasingly facilitating the deployment of digital networks, often through public-private partnerships, sometimes with finance derived from government revenues or loans from international financial institutions (OECD/WTO, 2017).

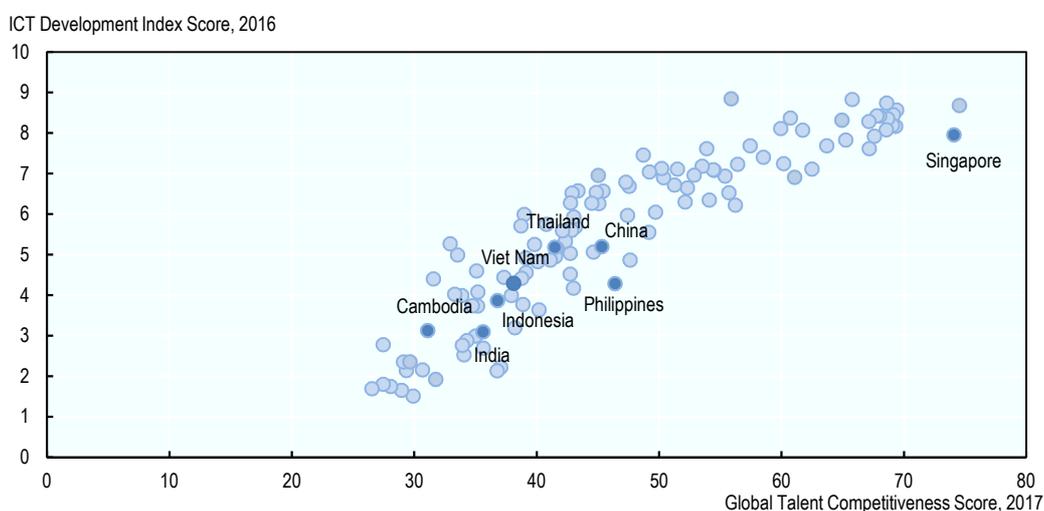
Infrastructure improvements need to be accompanied by market regulations that should be developed in consultation with the private sector. To accelerate the deployment of 5G networks, governments need to produce national and regional action plans with a specific time frame. They also need to act quickly to free up sufficient spectrum, and to facilitate investment in necessary infrastructure and wireless backhaul capacity (OECD, 2017d).

## Digitalisation places a great demand on human capital development

The skills shortage has increasingly become a global issue, with 40% of employers worldwide reporting difficulty in filling job positions in 2016, the highest level since 2007. IT skilled employees have jumped to second position among talents that are hard to find (ManpowerGroup, 2017). EMnet meeting participants agreed that this digital talent shortage is an important challenge for Emerging Asia.

Companies highlighted how engineers and technicians with ICT skills are needed to develop cutting-edge digital technologies, and stressed that education and training should commence at school level. Evidence shows a correlation between how countries promote human capital development and the development of ICTs (Figure 2.7).

Figure 2.7. Global Talent Competitiveness and ICT Development Index Scores



Source: OECD (2018d), *Economic Outlook for Southeast Asia, China and India 2018: Fostering Growth through Digitalisation*, <http://dx.doi.org/10.1787/9789264286184-en>.

A recent study among 1 500 business leaders across Asia showed that a lack of skills and resources is the premier barrier to achieving digital transformation (Jimenez, D.-Z. et al., 2018). It is estimated that 80% of the 54 million workers in Viet Nam lack adequate digital skills (Thuy, 2017). Thailand had an estimated 300-400 data scientists only, while the entire Asia-Pacific region had an estimated deficit of 1 million in total (Leesa-Nguansuk, 2017). In 2015, it was also estimated that China had a shortage of more than 1.5 million big data specialists (APEC, 2017).

## Efforts are needed to increase the digital capabilities of employees

EMnet meeting participants highlighted the importance of increasing employees' digital capabilities in both the public and private sectors, especially with respect to generic ICT skills. Digital capabilities and usage differ across firm size, and smaller firms tend to lag behind in the effective use of digital tools. In the public sector, employees may tend to stick to traditional working processes and have difficulty adopting new digital tools, such as e-government (OECD, 2017a).

Singapore provides a successful example of a partnership between the public and private sectors. Under the TechSkills Accelerator (TeSA) initiative, the government is teaming up with technology companies to enable 12 000 more people to acquire digital know-how (IMDA, 2018).

SMEs may need training support from the public sector to enhance their digital capabilities and seize business opportunities in digitalisation (ITC, 2016). This type of training may go beyond the use of digital tools and towards broader management skills and business strategies, especially in e-commerce. It could be useful for national and local governments to involve industry intermediaries, such as chambers of commerce and business associations, in providing training programmes for SMEs as well (ITC, 2016).

National education systems need to adapt to new job requirements emerging in the digital era, specifically in emerging markets. Continuous education and lifelong learning programmes on ICT skills can be used to help overcome job losses occurring during the phase of digital transformation, as employees and job seekers work to upgrade and develop competitive skills that advance human capital.

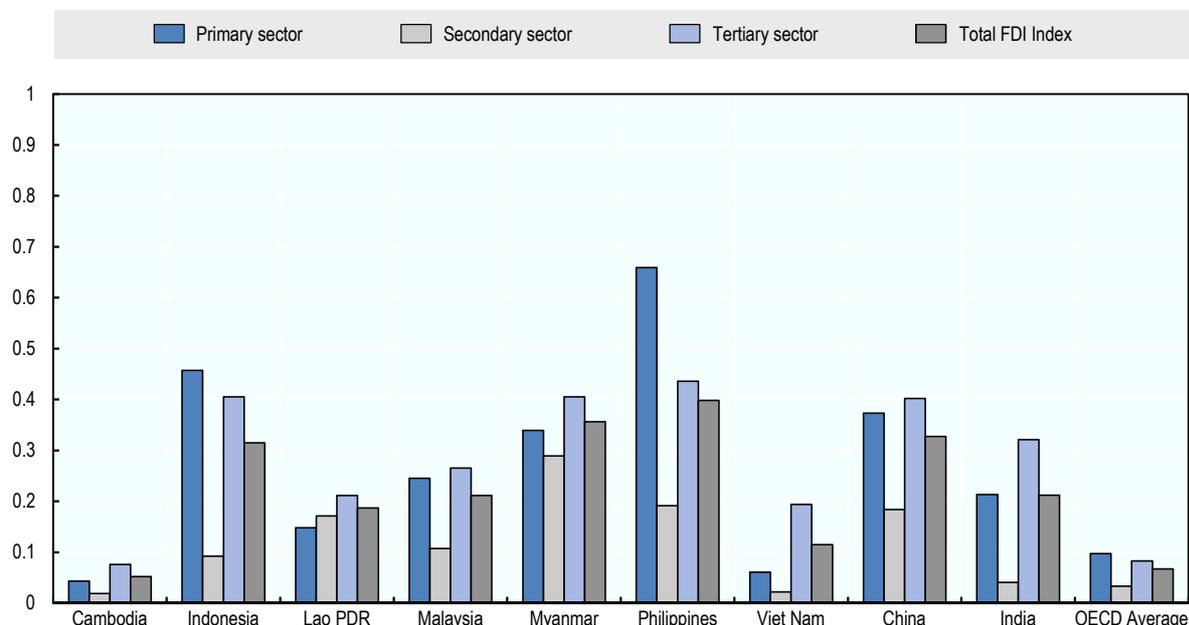
#### **A culture of change and formal training are prerequisites for the spread of digitalisation**

Supporting a culture of change within organisations is essential in order to advance the digitalisation of business processes. In this context, companies agree that it is necessary to help employees embrace the technological shift. Total, a global energy company, actively promotes digital transformation within the firm through various online training programmes, such as massive open online courses (MOOCs). Employees can also obtain “digital passports” to gain greater understanding and expertise in the latest digital trends (Total, n.d.). IBM has established a machine-learning hub in Bangalore, India, to help data professionals, business analysts and engineers better understand and master the technologies and techniques needed to work with IBM data (IBM, 2017). Public organisations also need to manage the culture of digital transformation, push the adoption of digital tools, and offer training programmes for employees to enhance their digital working skills (Deloitte, 2015).

#### **Regulatory reforms should keep pace with accelerating digital growth**

EMnet meeting participants agreed that governments need to provide a stable and sound regulatory framework for private investment. The demand for pro-investment policy reforms with respect to digitalisation has never been greater. However, to date, regulations have struggled to keep pace with the converged, highly dynamic and evolving digital ecosystem (Gestrin and Staudt, 2018). In Emerging Asia, meeting participants discussed how regulations in the telecommunications sector tend to be quite restrictive, and can negatively affect investment decisions (see Figure 2.8 for regulatory restrictiveness in various sectors).

Figure 2.8. Regulatory restrictiveness towards FDI in selected sectors, 2016  
(Index, score 0-1 from open to closed)



Source: OECD (2018d), *Economic Outlook for Southeast Asia, China and India 2018: Fostering Growth through Digitalisation*, <http://dx.doi.org/10.1787/9789264286184-en>.

Surging cross-border data flows are expected to create substantial economic value for multinationals and society, yet pose regulatory challenges. In 2014, all types of global trade flows, including goods, services and finance, were estimated to have added a value of USD 7.8 trillion to world GDP, whereas data flows represented about USD 2.8 trillion (McKinsey Global Institute, 2016b). As data become an increasingly critical strategic asset for multinational companies, regulations on their collection, storage, usage and security are having a significant impact on investment decisions and business performance. Lacking standards on regulating cross-border data flows, for example, could add to the cost and complexity of international operations, especially for technology-led multinationals heavily relying upon free data flows (Gestrin and Staudt, 2018).

### Regulatory barriers have a negative impact on the development of e-commerce

Regulatory barriers are emerging alongside the expansion of international e-commerce. Stringent financial licensing agreements and restrictions on the ability of foreign e-commerce companies to enter and engage with new markets are among major legal barriers (OECD/WTO, 2017). In India, for example, foreign e-commerce companies are prohibited from selling their own goods, limiting the market expansion of two of India's largest online retailers, Amazon and Flipkart (OECD/WTO, 2017).

Burdensome customs procedures, a lack of adequate information, and tariff and non-tariff barriers are considered to be the most prominent obstacles for cross-border e-commerce (ITC, 2016). EMnet meeting participants highlighted how regulatory barriers have become a major policy

concern, particularly for SMEs, noting that they generate high compliance costs related to e-commerce. In Southeast Asia, for instance, tariffs and non-tariff technical barriers can impede SMEs from accessing foreign markets through online platforms. Furthermore, Indonesia, the Philippines, Thailand and Viet Nam still lack tailored regulations for e-commerce and present difficult customs procedures and corruption problems (APEC Business Advisory Council, 2015).

EMnet meeting participants also stressed how unclear Value Added Tax (VAT) policies can potentially bring additional risks for e-commerce traders and reduce the competitiveness of domestic suppliers. The collection of VAT on B2C transactions is a pressing issue that needs to be addressed in order to create a level playing field among foreign and domestic suppliers, as traditional tax approaches based on domestic physical presence do not always apply to the context of international e-commerce (OECD, 2014).

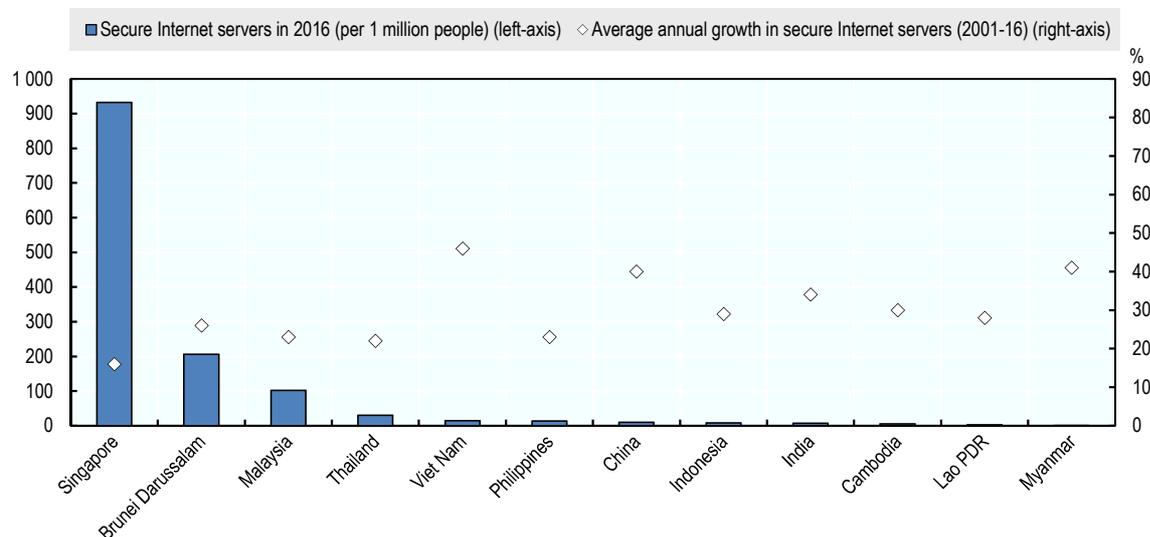
According to EMnet meeting participants, in order to increase cross-border e-commerce, governments need to simplify customs procedures, particularly for low-value shipments, and cut duties and taxes. A cost-benefit analysis is needed to set an appropriate exception threshold for duties on low-value shipments, especially among SMEs. Evidence shows that the benefits and savings derived from raising the threshold on duties can be greater than the loss of tax revenue (ITC, 2016).

The WTO Trade Facilitation Agreement that came into force in 2017 can be a positive instrument in expediting the movement, release and clearance of goods, including goods in transit, and in encouraging co-operation between relevant authorities on trade facilitation and customs compliance issues (WTO, n.d.).

### **Striking the right balance between data protection and usage**

Citizens are concerned about the privacy and security of data collected via digital technologies by companies and governments. Furthermore, the legal protection of personal data in a majority of emerging markets remains relatively limited (UNCTAD, 2016). Secure Internet servers are still rare in much of Emerging Asia (Figure 2.9).

Figure 2.9. Total and growth in the number of secure Internet servers, 2001-16



Source: OECD (2018d), *Economic Outlook for Southeast Asia, China and India 2018: Fostering Growth through Digitalisation*, <http://dx.doi.org/10.1787/9789264286184-en>.

In India, an independent data protection law has not yet been implemented and existing rules governing security practices and procedures with respect to sensitive data are limited in scope and coverage (UNCTAD, 2016). A national strategy with legislation for cyber security is still absent in Lao PDR, Myanmar, Cambodia and Brunei Darussalam (Gerdemann et al., 2017). In the context of growing data flows and the penetration of e-commerce, breaches in security, such as fraudulent online payments and identity theft, can significantly reduce trust in, and use of, digital platforms and technologies (OECD, 2017a).

Although governments have a clear interest in protecting citizen information and data, EMnet discussions also noted the equal importance of choosing instruments that do not impose undue economic costs on business operators. Co-operation among regulators and better flows of information between businesses and public authorities can help to identify cost-effective regulatory alternatives with more flexibility (OECD, 2018d). For example, Asia-Pacific Economic Co-operation, a regional economic forum joined by 21 member countries, has developed the Cross-Border Privacy Rules (CBFR) system, where companies and member countries can join the scheme on a voluntary basis to allow transfer of personal data in compliance with standard privacy policies (UNCTAD, 2016).

EMnet meeting participants also agreed that the private sector should collaborate with public authorities to hedge cyber risks and regulate data flows. For example, Microsoft has opened a new cyber security engagement centre in New Delhi, India, which controls the spread of malware by monitoring Internet traffic in that country (Hansotia, 2016). It is the company's seventh centre worldwide and it is intended to support Microsoft's global efforts to promote collaboration between the public and private sector in combating cyber risk by monitoring the cyber environment, detecting cyber threats, and developing solutions for customers (Hansotia, 2016).

### Trade agreements can play a critical role in promoting digital growth

Trade agreements can help manage potential conflicts between data protection laws in different countries and facilitate trade in the digital era. Types of agreements can range from simple bilateral treaties to more sophisticated regional and global arrangements (UNCTAD, 2016). EMnet meeting participants emphasised that trade agreements should keep pace with changing business models in the wake of digitalisation. This issue has been discussed already at the WTO, which offers several formats for trade agreements covering digital trade issues. However, they apply equally to the online and offline worlds. As digitalisation increases its impact on trade, some agreements have begun to include specific chapters on digital services, e-commerce and telecommunication (OECD, 2017a).

Multilateral trade agreements hold great potential to boost trade liberalisation in digital transformation (Asian Trade Centre, 2016). Alibaba has put efforts into providing multilateral support for e-commerce trade agreements, specifically based on the concept of establishing an Electronic World Trade Platform (eWTP), a private sector-led international agreement to remove trade barriers for SMEs already supported by the WTO. The initiative argues that the reduction of trade barriers and the creation of Digital Free Trade Zones can make it easier for SMEs to trade worldwide and access relevant information.

In addition to multilateral trade agreements, regional trade agreements have appeared as the essential laboratories for new rules and disciplines for the digital era. For instance, the ASEAN-Australia-New Zealand Free Trade Agreement (AANZFTA) has a dedicated chapter on electronic commerce, with provisions for online data protection and paperless trading (AANZFTA, n.d.). The signed Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) has separate chapters on telecommunications, e-commerce and cross-border trade in services (Government of New Zealand, 2018). Since 2012, the ASEAN-6 countries have been negotiating the Regional Comprehensive Economic Partnership (RCEP), which will include provisions to address digital trade-related issues (ICTSD/IDB, 2017).

## CONCLUSION

The private sector can play a significant role in the development of the digital economy in Emerging Asia. The increasing adoption of digital technologies is expected to bring significant business opportunities. However, many countries still face bottlenecks. Inadequate infrastructure, a shortage of ICT skills, regulatory challenges, data security and privacy risks need close attention by public authorities and require efforts conducted jointly with the private sector.

Policy makers need to create a favourable and stable regulatory environment that promotes investment encourages digital innovation and facilitates SME participation in the digital economy. Furthermore, regulators should maintain a balance between data protection and free data flows through effective instruments, such as international trade agreements.

## Notes

- <sup>1</sup> Emerging Asia refers to Southeast Asia (ASEAN), India and the People's Republic of China (hereafter 'China').
- <sup>2</sup> ASEAN-10 includes Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Viet Nam.
- <sup>3</sup> In UNCTAD's definition, Developing Asia includes all nations in Eastern Asia, Southern Asia, South-Eastern Asia and Western Asia (excluding Israel and Japan).
- <sup>4</sup> ASEAN-6 includes Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore and Thailand.

## References

- AANZFTA (n.d.), "Chapter 10. Electronic commerce", webpage, <http://aanzfta.asean.org/chapter-10-electronic-commerce/> (accessed 12 December 2018).
- ADB (2018), *Asian Development Outlook 2018: How Technology Affects Jobs*, Asian Development Bank, Manila, <http://dx.doi.org/10.22617/FLS189310-3>
- ADB (2017), *Asian Economic Integration Report 2017: The Era of Financial Interconnectedness – How Can Asia Strengthen Financial Resilience?*, Asian Development Bank, Manila, <http://dx.doi.org/10.22617/TCS179038-2>.
- AliResearch (2017), *Inclusive Growth and E-commerce: China's Experience*, AliResearch, <http://i.aliresearch.com/img/20170630/20170630151728.pdf>.
- Angola Cables (2018), "SACS undersea cable makes landfall in Fortaleza, Brazil", press release, 22 February, Angola Cables, <https://www.angolacables.co.ao/sacs-undersea-cable-makes-landfall-in-fortaleza-brazil/?lang=en> (accessed 9 October 2018).
- APEC (2017), *Data Science and Analytics Skills Shortage: Equipping the APEC Workforce with the Competencies Demanded by Employers*, Asia-Pacific Economic Cooperation Secretariat, Singapore, <https://www.apec.org/Publications/2017/11/Data-Science-and-Analytics-Skills-Shortage>.
- APEC Business Advisory Council (2015), *Driving Economic Growth through Cross-Border E-commerce in APEC: Empowering MSMEs and Eliminating Barriers*, University of Southern California, Marshall School of Business, <http://incapec.org/docs/ABAC%20Documents/USC%20Marshall%20ABAC%202015%20MSMEs.pdf>.
- Asian Trade Centre (2016), *Digital Trade and the TPP: How Asia-Pacific Benefits*, [https://static1.squarespace.com/static/5393d501e4b0643446abd228/t/57d79a3ad482e97b4e17e70d/1473747519273/digital+trade+and+the+TPP\\_v7.pdf](https://static1.squarespace.com/static/5393d501e4b0643446abd228/t/57d79a3ad482e97b4e17e70d/1473747519273/digital+trade+and+the+TPP_v7.pdf).
- Assante, D. et al. (2016), *The Use of Cloud Computing in SMEs*, Second International Workshop on Mobile Cloud Computing systems, Management, and Security, Procedia Computer Science 83, [https://www.researchgate.net/publication/303028379\\_The\\_Use\\_of\\_Cloud\\_Computing\\_in\\_SMEs](https://www.researchgate.net/publication/303028379_The_Use_of_Cloud_Computing_in_SMEs).
- Bhunia, P. (2018), "Thailand PM announces Digital Government Plan 2017-2021 to achieve integrated, citizen-centric digital government within 5 years", 21 January, OpenGov Asia, <https://www.opengovasia.com/thailand-pm-announces-digital-government-plan-2017-2021-to-achieve-integrated-citizen-centric-digital-government-within-5-years/> (accessed 9 October 2018).
- Bloomberg News (2018), "China now has the most valuable AI startup in the world", 8 April, Bloomberg, <https://www.bloomberg.com/news/articles/2018-04-09/sensetime-snags-alibaba-funding-at-a-record-3-billion-valuation> (accessed 9 October 2018).
- Brown, R. (6 June 2017), "Beijing's silk road goes digital", Council on Foreign Relations blog, [www.cfr.org/blog/beijings-silk-road-goes-digital](http://www.cfr.org/blog/beijings-silk-road-goes-digital).
- Boston Consulting Group (2012), *Adapt and Adopt: Governments' Role in Internet Policy*, [www.bcgperspectives.com/content/articles/digital\\_economy\\_public\\_sector\\_adapt\\_adopt\\_government\\_role\\_internet\\_policy](http://www.bcgperspectives.com/content/articles/digital_economy_public_sector_adapt_adopt_government_role_internet_policy).
- Chakravorti, B. and R.S. Chaturvedi (2017), *Digital Planet 2017: How Competitiveness and Trust in Digital Economies Vary Across the World*, The Fletcher School, Tufts University, Medford,

- [https://sites.tufts.edu/digitalplanet/files/2017/05/Digital\\_Planet\\_2017\\_FINAL.pdf](https://sites.tufts.edu/digitalplanet/files/2017/05/Digital_Planet_2017_FINAL.pdf).
- Constantinescu, C., A. Mattoo and M. Ruta (2018), "Trade in developing East Asia: How it has changed and why it matters", *Policy Research Working Paper*, No. 8533, World Bank, Washington, DC, <http://documents.worldbank.org/curated/en/612321531499830843/pdf/WPS8533.pdf>.
- Dewar, C. et al. (2017), *5G in China: Outlook and regional comparisons*, GSM Association, London, <https://www.gsmainelligence.com/research/?file=67a750f6114580b86045a6a0f9587ea0&download>.
- Deloitte (2015), *The Journey to Governments' Digital Transformation*, Deloitte University Press, [https://www2.deloitte.com/content/dam/insights/us/articles/digital-transformation-in-government/DUP\\_1081\\_Journey-to-govt-digital-future\\_MASTER.pdf](https://www2.deloitte.com/content/dam/insights/us/articles/digital-transformation-in-government/DUP_1081_Journey-to-govt-digital-future_MASTER.pdf).
- dLocal (2018), dLocal website, [www.dlocal.com/](http://www.dlocal.com/) (accessed 29 October 2018).
- ENGIE (n.d.), "About us", webpage, <https://innovation.engie.com/en/about-us> (accessed 10 December 2018).
- FAO (2012), "Using ICT to enable agricultural innovation systems for smallholders", Food and Agriculture Organization of the United Nations, Rome, <http://www.fao.org/docrep/018/ar130e/ar130e.pdf>.
- Gerdemann, D., N. Dobberstein and G. Pereira (2018), *Cybersecurity in ASEAN: An Urgent Call to Action*, A.T. Kearney, [www.atkearney.com/digital-transformation/article/?a/cybersecurity-in-asean-an-urgent-call-to-action](http://www.atkearney.com/digital-transformation/article/?a/cybersecurity-in-asean-an-urgent-call-to-action).
- Gestrin, M.V. and J. Staudt (2018), *The Digital Economy, Multinational Enterprises and International Investment Policy*, OECD Publishing, Paris, [www.oecd.org/investment/investment-policy/The-digital-economy-multinational-enterprises-and-international-investment-policy.pdf](http://www.oecd.org/investment/investment-policy/The-digital-economy-multinational-enterprises-and-international-investment-policy.pdf).
- Goodman, M.P. (2018), "From TPP to CPTPP", 8 March, Center for Strategic and International Studies, <https://www.csis.org/analysis/tpp-cptpp> (accessed 27 September 2018).
- Government of India (n.d. a), Income Tax Department website, <https://incometaxindiaefiling.gov.in/main/aboutUs> (accessed 29 October 2018).
- Government of India (n.d. b), "e-Procurement", webpage, <http://meity.gov.in/content/e-procurement> (accessed 29 October 2018).
- Government of New Zealand (2018), "Comprehensive and Progressive Agreement for Trans-Pacific Partnership text", webpage, <https://www.mfat.govt.nz/en/trade/free-trade-agreements/free-trade-agreements-concluded-but-not-in-force/cptpp/comprehensive-and-progressive-agreement-for-trans-pacific-partnership-text/#chapters> (accessed 12 December 2018).
- GSMA (2017a), *Mobile Money and E-commerce: Three Areas of Partnership in Southeast Asia*, GSM Association, London, [www.gsma.com/mobilefordevelopment/wp-content/uploads/2017/07/GSMA-Establishing-successful-mobile-money-and-e-commerce-partnerships-in-Southeast-Asia.pdf](http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2017/07/GSMA-Establishing-successful-mobile-money-and-e-commerce-partnerships-in-Southeast-Asia.pdf).
- GSMA (2017b), *Aadhaar: Inclusive by Design – A Look at India's National Identity Programme and its Role in the JAM Trinity*, GSM Association, London, [www.gsma.com/mobilefordevelopment/wp-content/uploads/2017/03/gsma-aadhaar-report-270317.pdf](http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2017/03/gsma-aadhaar-report-270317.pdf).
- GSMA (2017c), *The Mobile Economy: Asia Pacific 2017*, GSM Association, London, <https://www.gsmainelligence.com/research/?file=336a9db2ab3ed95bc70e62bf7e867855&download>.
- GSMA (2016a), *The Mobile Economy 2016*, GSM Association, London, [www.gsmainelligence.com/research/?file=97928efe09cdba2864cdcf1ad1a2f58c&download](http://www.gsmainelligence.com/research/?file=97928efe09cdba2864cdcf1ad1a2f58c&download).
- GSMA/Deloitte (2015), *Digital Inclusion and Mobile Sector Taxation 2015*, GSM Association, London, <https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/06/Digital-Inclusion-Mobile-Sector-Taxation-2015.pdf>.
- Hansotia, F. (2016), "Microsoft increases cybersecurity investments in India", 21 October, Microsoft News Center India, <https://news.microsoft.com/en-in/microsoft-increases-cybersecurity-investments-in-india/> (accessed 9 October 2018).
- Hsu, J.W. (2018), "Alibaba invests a further \$2 billion in Lazada to accelerate region's e-commerce", 18 March, Alizila, [www.alizila.com/alibaba-invests-us2-billion-lazada-accelerate-regions-e-commerce/](http://www.alizila.com/alibaba-invests-us2-billion-lazada-accelerate-regions-e-commerce/) (accessed 9 October 2018).
- Huawei (2017), "5G Automotive Association and European Automotive Telecom Alliance sign a partnership MoU",

- press release, 3 March, Huawei, <https://www.huawei.com/en/press-events/news/2017/3/5GAA-EATA-sign-a-partnership-MoU> (accessed 25 March 2019).
- IBM (2017), "IBM opens first machine learning hub in India", press release, 3 August, IBM, <https://www-03.ibm.com/press/in/en/pressrelease/52948.wss> (accessed 9 October 2018).
- ICTSD/IDB (2017), *Digital Trade-Related Provisions in Regional Trade Agreements: Existing Models and Lessons for the Multilateral Trade System*, International Centre for Trade and Sustainable Development, Geneva/Inter-American Development Bank, New York, <http://e15initiative.org/wp-content/uploads/2015/09/RTA-Exchange-Digital-Trade-Mark-Wu-Final.pdf>.
- ID2020 (n.d.), ID2020 website, <https://id2020.org/> (accessed 4 October 2018).
- IEA (2017), *Digitalization & Energy*, IEA, Paris, <https://doi.org/10.1787/9789264286276-en>.
- IFC (2019), *Blockchain Opportunities for Private Enterprises in Emerging Markets*, International Finance Corporation, Washington, DC, [www.ifc.org/wps/wcm/connect/8a338a98-75cd-4771-b94c-5b6db01e2797/IFC-EMCompass-BlockchainReport\\_WebReady.pdf?MOD=AJPERES](http://www.ifc.org/wps/wcm/connect/8a338a98-75cd-4771-b94c-5b6db01e2797/IFC-EMCompass-BlockchainReport_WebReady.pdf?MOD=AJPERES).
- IMDA (2018), "AI Singapore launches two new initiatives in partnership with IMDA to strengthen local proficiency in Artificial Intelligence (AI)", press release, 19 December, Infocomm Media Development Authority, <https://www.imda.gov.sg/about/newsroom/media-releases/2018/ai-singapore-launches-two-new-initiatives-in-partnership-with-imda> (accessed 9 October 2018).
- IMF (2018), *Regional Economic Outlook. Asia Pacific: Good Times, Uncertain Times, A Time to Prepare*, International Monetary Fund, Washington, DC, <http://www.imf.org/~media/Files/Publications/REO/APD/2018/apd-reo-full-report.ashx?la=en>.
- IMF (2017), *Regional Economic Outlook. Asia Pacific: Preparing for Choppy Seas*, International Monetary Fund, Washington, DC, <https://www.imf.org/~media/Files/Publications/REO/APD/2017/areo0517.ashx>.
- ITC (2016), *Bringing SMEs onto the E-commerce Highway*, International Trade Centre, Geneva, [http://www.intracen.org/uploadedFiles/intracenorg/Content/Publications/Bringing%20SMEs%20onto%20the%20E-Commerce%20Highway\\_final\\_250516\\_Low-res.pdf](http://www.intracen.org/uploadedFiles/intracenorg/Content/Publications/Bringing%20SMEs%20onto%20the%20E-Commerce%20Highway_final_250516_Low-res.pdf).
- ITU (2017), *Measuring the Information Society Report 2017 – Volume 1*, International Telecommunication Union, Geneva, [www.itu.int/en/ITU-D/Statistics/Documents/publications/misr2017/MISR2017\\_Volume1.pdf](http://www.itu.int/en/ITU-D/Statistics/Documents/publications/misr2017/MISR2017_Volume1.pdf).
- Jimenez, D.-Z. et al. (2018), "Unlocking the economic impact of digital transformation in Asia Pacific", white paper, Microsoft and International Data Corporation (IDC) Asia/Pacific, <https://3er1viui9wo30pkxh1v2nh4w-wpengine.netdna-ssl.com/wp-content/uploads/prod/sites/43/2018/11/Unlocking-the-economic-impact-of-digital-transformation.pdf>.
- Khan, D. (2018), "Airtel, Huawei conduct India's first 5G network test trial", 23 February, ETTelecom, <https://telecom.economicstimes.indiatimes.com/news/airtel-huawei-conduct-indias-first-5g-network-test-trial/63043433> (accessed 9 October 2018).
- Leesa-Nguansuk, S. (2017), "Data science poised to boom", *Bangkok Post*, <https://www.bangkokpost.com/tech/local-news/1226624/data-science-poised-to-boom> (accessed 9 October 2018).
- Mahindra (2016), "Mahindra and IBM to develop blockchain solution for supply chain finance", press release, 30 November, Mahindra, <http://www.mahindra.com/news-room/press-release/Mahindra-and-IBM-to-Develop-Blockchain-Solution-for-Supply-Chain-Finance> (accessed 9 October 2018).
- ManpowerGroup (2017), "2016/2017 Talent Shortage Survey", [http://www.manpowergroup.co.uk/wp-content/uploads/2016/10/2016\\_TSS\\_Infographic\\_UnitedKingdom.pdf](http://www.manpowergroup.co.uk/wp-content/uploads/2016/10/2016_TSS_Infographic_UnitedKingdom.pdf).
- McKinsey Global Institute (2016a), *How Digital Finance Could Boost Growth in Emerging Economies*, McKinsey & Company, [www.mckinsey.com/global-themes/employment-and-growth/how-digital-finance-could-boost-growth-in-emerging-economies](http://www.mckinsey.com/global-themes/employment-and-growth/how-digital-finance-could-boost-growth-in-emerging-economies).
- McKinsey Global Institute (2016b), *Digital Globalization: The New Era of Global Flows*, McKinsey & Company, <https://www.mckinsey.com/~media/McKinsey/Business%20Functions/McKinsey%20Digital/Our%20Insights/Digital%20Globalization%20The%20new%20era%20of%20global%20flows/MGI-Digital-globalization-Executive-summary.ashx>.

- McKinsey Global Institute (2016c), "Digital in industry: From buzzword to value creation", McKinsey & Company, [www.mckinsey.com/business-functions/digital-mckinsey/our-insights/digital-in-industry-from-buzzword-to-value-creation](http://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/digital-in-industry-from-buzzword-to-value-creation).
- MDEC (2017), "Malaysia launches world's first digital free trade zone", press release, 22 March, Malaysia Digital Economy Corporation, [www.mdec.my/news/malaysia-launches-worlds-first-digital-free-trade-zone#](http://www.mdec.my/news/malaysia-launches-worlds-first-digital-free-trade-zone#) (accessed 9 October 2018).
- Microsoft (2017), "Is Asia's financial services industry ready for digital disruption?", <https://news.microsoft.com/uploads/2017/10/FSI-Digital-Transformation-Infographic.pdf>.
- Nedelkoska, L. and G. Quintini (2018), "Automation, skills use and training", *OECD Social, Employment and Migration Working Papers*, No. 202, OECD Publishing, Paris, <http://dx.doi.org/10.1787/2e2f4eea-en>.
- OECD (2018a), *Economic Outlook for Southeast Asia, China and India 2019: Towards Smart Urban Transportation*, OECD Publishing, Paris, <https://doi.org/10.1787/saeo-2019-en>.
- OECD (2018b), "The Belt and Road Initiative in the global trade, investment and finance landscape", in *OECD Business and Finance Outlook 2018*, OECD Publishing, Paris, [https://doi.org/10.1787/bus\\_fin\\_out-2018-6-en](https://doi.org/10.1787/bus_fin_out-2018-6-en).
- OECD (2018c), *Economic Outlook for Southeast Asia, China and India 2018 - Update: Promoting Opportunities in E-commerce*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264302990-en>.
- OECD (2018d), *Economic Outlook for Southeast Asia, China and India 2018: Fostering Growth through Digitalisation*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264286184-en>.
- OECD (2018e), "Services Trade Restrictiveness Index (STRI)", <http://www.oecd.org/tad/services-trade/services-trade-restrictiveness-index.htm> (accessed 29 October 2018).
- OECD (2018f), *Embracing Innovation in Government: Global Trends 2018*, OECD Publishing, Paris, [www.oecd.org/gov/innovative-government/embracing-innovation-in-government-2018.pdf](http://www.oecd.org/gov/innovative-government/embracing-innovation-in-government-2018.pdf).
- OECD (2017a), *OECD Digital Economy Outlook 2017*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264276284-en>.
- OECD (2017b), *The Next Production Revolution: Implications for Governments and Business*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264271036-en>.
- OECD (2017c), *OECD Science, Technology and Industry Scoreboard 2017: The digital transformation*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264268821-en>.
- OECD (2017d), "OECD-ASEAN Business Statement: Business priorities and recommendations to promote digital transformation for an enhanced and inclusive business environment in Southeast Asia", OECD, Paris, [www.oecd.org/southeast-asia/events/regional-forum/SEARF\\_2017\\_Business\\_Statement.pdf](http://www.oecd.org/southeast-asia/events/regional-forum/SEARF_2017_Business_Statement.pdf).
- OECD (2016a), "Consumer protection laws need updating to improve trust in e-commerce", press release, 30 March, OECD Newsroom, <http://www.oecd.org/newsroom/consumer-protection-laws-need-updating-to-improve-trust-in-e-commerce.htm> (accessed 9 October 2018).
- OECD (2016b), *Digital Government Strategies for Transforming Public Services in the Welfare Areas*, OECD, Paris, <http://www.oecd.org/gov/digital-government/Digital-Government-Strategies-Welfare-Service.pdf>.
- OECD (2014), *Addressing the Tax Challenges of the Digital Economy*, OECD/G20 Base Erosion and Profit Shifting Project, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264218789-en>.
- OECD/WTO (2017), *Aid for Trade at a Glance 2017: Promoting Trade, Inclusiveness and Connectivity for Sustainable Development*, World Trade Organization, Geneva/OECD Publishing, Paris, [http://dx.doi.org/10.1787/aid\\_glance-2017-en](http://dx.doi.org/10.1787/aid_glance-2017-en).
- Oracle (2017), "Oracle announces data center plans for India", press release, Oracle, <https://www.oracle.com/corporate/pressrelease/oracle-datacenter-plans-india-050917.html> (accessed 9 October 2018).
- Ortiz, A. (2018), *Accelerating Digitalisation in Emerging Markets*, BBVA Research, [www.bbva.com/wp-content/uploads/2018/03/EMnet-Accelerating-Digitalisation\\_BBVA\\_AlvaroOrtiz\\_March2018new.pdf](http://www.bbva.com/wp-content/uploads/2018/03/EMnet-Accelerating-Digitalisation_BBVA_AlvaroOrtiz_March2018new.pdf).
- Purefoy, C. and T. Kermeliotis (2012), "Underwater cables bring faster internet to West Africa", 10 January, CNN,

- <https://edition.cnn.com/2012/01/10/business/funke-opeke-cable-internet/index.html> (accessed 9 October 2018).
- Roy, P.K. (2018), "Why did Walmart buy India's Flipkart?", 11 May, BBC News, <https://www.bbc.com/news/world-asia-india-44064337> (accessed 9 October 2018).
- Scott, M. (2016), "Russia prepares to block LinkedIn after court ruling", 10 November, *The New York Times*, [www.nytimes.com/2016/11/11/technology/russia-linked-in-data-court-blocked.html?mcubz=0](http://www.nytimes.com/2016/11/11/technology/russia-linked-in-data-court-blocked.html?mcubz=0) (accessed 9 October 2018).
- Sheng, J., J. Zou and Y. Zhu (2016), *China's Recent Restrictions on Outbound Investments by Chinese Companies*, Pillsbury Winthrop Shaw Pittman LLP, New York, <https://www.pillsburylaw.com/images/content/1/0/v2/106336/AlertDec2016ChinaChinasRecentRestrictionsOnOutboundInvestmentsBy.pdf>.
- Strauss, D. and V. Romei (2018), "Rivals seek to profit from US-China trade war", 19 September, *Financial Times*, <https://www.ft.com/content/a6b16faa-bc23-11e8-94b2-17176bf93f5> (accessed 9 October 2018).
- Teijken, R. (2018), "Future of the Fourth Industrial Revolution will be powered by the Cloud", 30 May, IBM Blog, <https://www.ibm.com/blogs/think/be-en/2018/05/30/fourth-industrial-revolution/> (accessed 25 March 2019).
- Tencent Cloud (2018), "How China is running forward with blockchain", Tencent Cloud blog, <https://tencentcloud.io/2018/05/07/how-china-is-running-forward-with-blockchain/>.
- Thuy, M. (2017), "Cisco's initiatives prepare Vietnam's workforce for the digital future", 20 January, *Vietnam Investment Review*, <http://www.vir.com.vn/ciscos-initiatives-prepare-vietnams-workforce-for-the-digital-future-47028.html> (accessed 13 December 2018).
- Total (n.d.), "Boost your career", webpage, <https://www.careers.total.com/en/why-total/boost-your-career> (accessed 13 December 2018).
- TMO Group (30 March 2016), "Cross border ecommerce logistics in China: Bonded zone or direct shipping?", TMO Group Insights blog, <http://www.tmogroup.asia/cross-border-ecommerce-logistics-in-china-bonded-zone-or-direct-shipping/> (accessed 13 December 2018).
- UN (2016), *United Nations E-government Survey 2016*, United Nations, New York, <http://workspace.unpan.org/sites/Internet/Documents/UNPAN97453.pdf>.
- UN (n.d.), Sustainable Development Goals Knowledge Platform, website, <https://sustainabledevelopment.un.org/> (accessed 4 October 2018).
- UNCTAD (2018), *World Investment Report 2018: Investment and New Industrial Policies*, United Nations, Geneva, [http://unctad.org/en/PublicationsLibrary/wir2018\\_en.pdf](http://unctad.org/en/PublicationsLibrary/wir2018_en.pdf).
- UNCTAD (2016), *Data Protection Regulations and International Data Flows: Implications for Trade and Development*, United Nations, Geneva, [http://unctad.org/en/PublicationsLibrary/dtstict2016d1\\_en.pdf](http://unctad.org/en/PublicationsLibrary/dtstict2016d1_en.pdf).
- Visa (2017), "Global transaction processing expanded", press release, 26 July, Visa, <https://www.visaeurope.com/newsroom/news/visa-expands-global-transaction-processing-with-facilities-in-singapore-and-united-kingdom> (accessed 13 December 2018).
- World Bank (2018), "Identification for Development (ID4D) Global Dataset", *The World Bank Data Catalog* (database), <https://datacatalog.worldbank.org/dataset/identification-development-global-dataset> (accessed 29 October 2018).
- World Bank (2016), *Digital Identity: Towards Shared Principles for Public and Private Sector Cooperation*, World Bank Group, Washington, DC, <http://documents.worldbank.org/curated/en/600821469220400272/pdf/107201-WP-PUBLIC-WB-GSMA-SIADigitalIdentity-WEB.pdf>.
- World Bank (2009), *Economic Impacts of Broadband in Information and Communications for Development 2009: Extending Reach and Increasing Impact*, World Bank, Washington, DC, [http://siteresources.worldbank.org/EXTIC4D/Resources/IC4D\\_Broadband\\_35\\_50.pdf](http://siteresources.worldbank.org/EXTIC4D/Resources/IC4D_Broadband_35_50.pdf).
- World Economic Forum (2014), "E-commerce in Emerging Markets", [www.weforum.org/agenda/2014/11/growth-e-commerce-emerging-markets/](http://www.weforum.org/agenda/2014/11/growth-e-commerce-emerging-markets/).
- World Economic Forum (2013), "Emerging markets: Big challenges, big opportunities", in *Delivering Digital Infrastructure: Advancing the Internet Economy*, World Economic Forum, New York,

[http://www3.weforum.org/docs/WEF\\_TC\\_DeliveringDigitalInfrastructure\\_InternetEconomy\\_Report\\_2014.pdf](http://www3.weforum.org/docs/WEF_TC_DeliveringDigitalInfrastructure_InternetEconomy_Report_2014.pdf).

- WTO (2018), "Integrated analysis and retrieval of notified non-tariff measures: Measures Initiated and in Force from 2006 to 2018", webpage, <https://i-tip.wto.org/goods/Forms/GraphView.aspx> (accessed 8 October 2018).
- WTO (n.d.), "Trade facilitation", webpage, [https://www.wto.org/english/tratop\\_e/tradfa\\_e/tradfa\\_e.htm](https://www.wto.org/english/tratop_e/tradfa_e/tradfa_e.htm) (accessed 13 December 2018).
- Xinhua (2017), "China to invest 1.2 trillion yuan in information infrastructure", 13 January, *China Daily*, [www.chinadaily.com.cn/business/tech/2017-01/13/content\\_27945298.htm](http://www.chinadaily.com.cn/business/tech/2017-01/13/content_27945298.htm) (accessed 9 October 2018).
- Yiyao, W. (2016), "Intel to expand in Shanghai with \$24 million investment", 4 November, *China Daily*, [http://www.chinadaily.com.cn/business/2016-11/04/content\\_27279279.htm](http://www.chinadaily.com.cn/business/2016-11/04/content_27279279.htm) (accessed 9 October 2018).
- Zhen-Wei Qiang, C., C.M. Rossotto and K. Kimura (2009), "Economic impacts of broadband", in *Information and Communications for Development 2009: Extending Reach and Increasing Impact*, World Bank, Washington, DC, [http://siteresources.worldbank.org/EXTIC4D/Resources/IC4D\\_Broadband\\_35\\_50.pdf](http://siteresources.worldbank.org/EXTIC4D/Resources/IC4D_Broadband_35_50.pdf).

### 3. Investment and confidence through stronger institutions

Growth is back in most of the Latin American and the Caribbean (LAC) region after years of stagnation. However, the lack of trust in public institutions weighs down on opportunities for further growth and investment. This chapter provides insights and policy recommendations from the private sector on how to restore business confidence and support investments in Latin America. The analysis builds on discussions held during the business meetings of the OECD Emerging Markets Network (EMnet) held in Paris, France, on 28 May 2018 and in Antigua, Guatemala on 14 November 2018, in addition to desk research and bilateral discussions with EMnet members and other private sector representatives.

Key messages include:

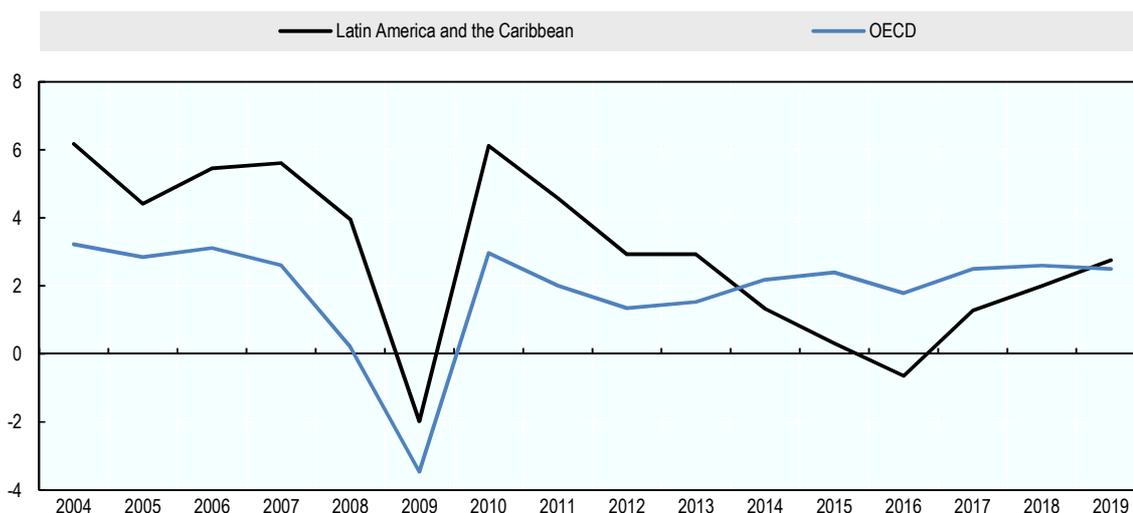
- Despite the improved economic climate, regional growth prospects are burdened by a lack of confidence, low levels of investment, low productivity, weak labour market conditions and a challenging business environment.
- LAC governments could further focus on implementing structural reforms that can improve business confidence and support investment. Some countries in the region could particularly capitalise on the opportunities offered by regional and global free trade initiatives to this end.
- Creating a supportive business environment by improving macroeconomic management and tackling insecurity issues can be key in generating business opportunities. Enhanced regulatory and fiscal policies can also help improve the investment climate and streamline industry-specific taxes.
- Public-private partnerships (PPPs) can prove to be an efficient solution to public service provision and contribute to capacity building provided certain conditions are met.
- A rethinking of labour market regulations and educational systems is needed to guarantee a supply of skilled workers, which in turn can support firm-level productivity.

## LATIN AMERICA'S ECONOMIC AND BUSINESS OVERVIEW

### After five years of economic slowdown, Latin America is on a path of frail economic recovery

After a five-year slowdown, the region's gross domestic product (GDP) began contracting in 2015 due to weak external demand and declining commodity prices, along with domestic, social and political turmoil (IMF, 2016a). Large economies such as Argentina and Brazil entered recessions, with output decreasing by 2.2% for Argentina and 3.6% for Brazil in 2016 (World Bank, 2018a). After regional growth reached 1.3% on average in 2017, GDP was projected to increase by around 2% in 2018 (versus an OECD average of 2.4%), and between 2.5% and 3% in 2019 (2.1% in the OECD) (Figure 3.1). This range masks a wide heterogeneity, with countries in Central America outperforming Mexico, South America and the Caribbean (OECD/CAF/ECLAC, 2018; IMF, 2018). The ongoing recovery is mostly the result of a more positive global economic outlook, but also of improvements in domestic conditions. Nevertheless, the current performance remains less favourable than the one experienced during the growth cycle of the 2000s. Between 2000 and 2010, growth rates averaged 3.3% per year (World Bank, 2018a).

Figure 3.1. GDP growth in Latin America and the OECD (annual %)



Note: Growth projections from the IMF for OECD countries and from ECLAC for Latin America.  
Source: OECD calculations (2018), based on IMF (2018) and ECLAC (2018).

### Investment in the region is insufficient to support long-term growth

After dropping in response to falling commodity prices and political uncertainty, domestic investment is expected to pick up. However, evidence shows that LAC economies invest less than most regions of the world, with only sub-Saharan Africa trailing behind in terms of share of GDP (IDB, 2018a). Total investment rates vary from country to country. Panama leads the region, with total investments representing 47% of GDP (IMF, 2017a). Many of these are associated with large-scale projects such as the expansion of the Panama Canal and an extensive pipeline of other

ongoing and planned investment projects (IMF, 2017b). Venezuela, on the other hand, invests the least, with a total investment rate of 8.8% in 2017 (IMF, 2017a).

Rapid technological advances and a shift in perceptions of globalisation have redirected foreign investment to advanced economies, which captured a larger share of global inflows (IMF, 2017a). Thus, foreign direct investment (FDI) in the LAC region is also suffering. Latin America saw an average decrease in FDI inflows of 7.8% in 2016 (ECLAC, 2017a). This was largely due to a significant loss of economic momentum, stemming in part from the fall in commodity prices, as well as increased political risk in certain countries.

FDI trends varied widely. The largest economies remain the most attractive, with Brazil (41% of regional inflows), Mexico (19%) and Colombia (9.5%) leading the region in FDI performance (UNCTAD, 2017a). South America was particularly affected by weak commodity prices, which had an effect on investment in natural resources. While FDI inflow to South American economies fell 14.2% to USD 101 billion, Colombia saw an increase of 15.9% and Paraguay 5.1% (UNCTAD, 2017b). Central America also experienced a drop in FDI inflows as trade headwinds formed. Only Panama saw a rise in FDI inflows (+16%), propelled by a rebound in equity investments, which had dipped in 2015. The Caribbean also experienced lower FDI, with strong variations across this sub-region.

## Regional trade performance is facing challenges

Global trade is picking up, yet LAC economies have failed to reap the full benefits of this recovery. In fact, trade in the region has contracted over the past three years (IMF, 2017c). LAC exports decreased by 6.1% in 2016, while imports dropped by 12.5% (WITS, 2018). This downward trend proceeded from the decline in international commodity prices and the global economic slowdown. An economic deceleration in China (OECD, 2018a), a key regional partner, has also contributed to diminished trade prospects for the region.

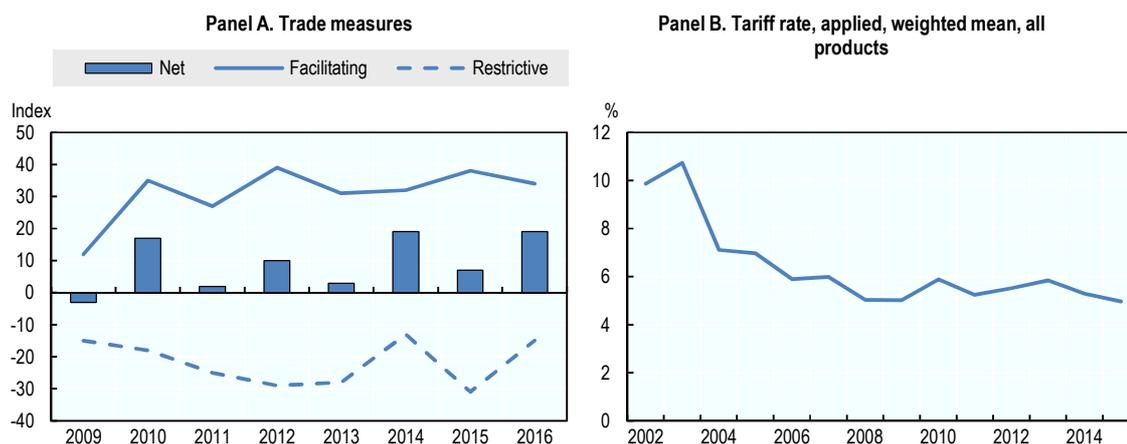
Similarly, Latin America's participation in global value chains is lower than for other emerging markets (Cadestin et al., 2016). Indeed, only 13% of the value exported by Argentina, Brazil, Chile, Colombia, Costa Rica and Peru was generated in other economies. This is below figures for North American Free Trade Agreement (NAFTA) countries (19%), the European Union and Southeast Asia (both at 30%).

Growing global protectionist sentiments have also fuelled uncertainty and worsened trade prospects for the region. This presents a potential barrier to business growth. Central American economies are particularly dependent on exports to the United States and are thus significantly exposed to changes in US trade policy. The renegotiated NAFTA (CUSMA) should help reduce fears that the United States will terminate the agreement. Lingering uncertainties from these negotiations and delays in ratification, however, could pose a significant risk to a number of industries throughout the LAC region. Other trade agreements, such as the Dominican Republic-Central America Free Trade Agreement (CAFTA-DR), to which the United States is party, could be seen as additionally risky.

The recent uncertainty surrounding trade prospects for Latin American economies has already hampered investment in the region (*The Economist*, 2017). Nevertheless, some countries have

been making progress in opening their economies to trade by liberalising tariffs and other such measures (Figure 3.2).

**Figure 3.2. Trade facilitation and trade restrictive measures and tariff rates, Latin America vs. world economies**



Note: Panel A estimated as the sum of trade facilitation and trade restrictive measures for Argentina, Brazil and Mexico. Panel B estimated as the simple mean of applied tariff rates (weighted by product) for Argentina, Brazil, Chile, Colombia, the Dominican Republic, Mexico, Peru and Uruguay.  
Source: WTO/OECD/UNCTAD (2017) and World Bank (2017b), *World Development Indicators*.

The LAC region also lags behind in terms of intra-regional trade. Approximately 15% of total exports are destined for markets within the region. This figure reaches 50% in developed economies in Asia and Europe. Furthermore, although other regions have made progress in this regard, LAC regional integration has remained relatively stable since 1990 (IMF, 2017d).

In this context, increasing regional integration will be important for Latin American economies if they are to return to the path of long-term inclusive growth. The OECD has recommended taking advantage of regional trade agreements such as the Pacific Alliance and Mercosur<sup>1</sup> in responding to an increasingly complex trade scenario (OECD/CAF/ECLAC, 2018).

### Low levels of productivity continue to hamper business activity in the region

The region has suffered from low productivity growth over the decade prior to 2018. Labour productivity has weakened, as GDP per person employed decreased by 1.5% since 2015 (OECD, 2018b). In fact, low labour productivity explains 70% of the gap in GDP per capita between the LAC region and the upper half of OECD economies (OECD, 2018b). Productivity is closely tied to firm-level competitiveness and business growth (Porter, 1990). The OECD has called for comprehensive structural reforms and stronger institutional support for pro-productivity policy frameworks to unleash private sector productivity and to close persisting productivity gaps (OECD, 2016a). The OECD estimates that the potential for inclusive productivity gains through policy reforms is strongest among Latin American small and medium-sized enterprises (SMEs). SMEs currently represent 70%

of Latin American employment, while generating only 30% of regional GDP, or half the OECD average (OECD, 2016a).

### **Labour markets continue to show vulnerabilities despite signs of improvement**

The performance of the labour market in Latin America and the Caribbean was mixed in 2017. After significant deterioration resulting from the 2011-15 economic slowdown and the economic contraction in 2016, unemployment in the LAC region rose from 7.9% in 2016 to 8.4% by the end of 2017 (ILO, 2017a). This trend is weighted principally by Brazil (40% of the regional labour force), which saw its unemployment rate rise to 13.1%. Without Brazil, the average unemployment rate for the LAC region fell from 6.1% in the third quarter of 2016 to 5.8% in the equivalent quarter of 2017. Central America and the Caribbean both experienced a decline in the unemployment rate, to 5.3% (-0.6%) in the case of Central America and 7.4% (-0.4%) for the Caribbean (ILO, 2017a).

Latin American youth (i.e. individuals aged 15 to 24 years) were particularly affected by the region's economic slowdown. For the first time in more than a decade, the youth unemployment rate reached nearly 20%, approximately triple the rate for adults (ILO, 2017a). Youth account for roughly 40% of the region's total unemployed population, with Guatemala (55%), Honduras (53%), Belize (50%) and Paraguay (49%) faring worst in this regard (ILO, 2017a).

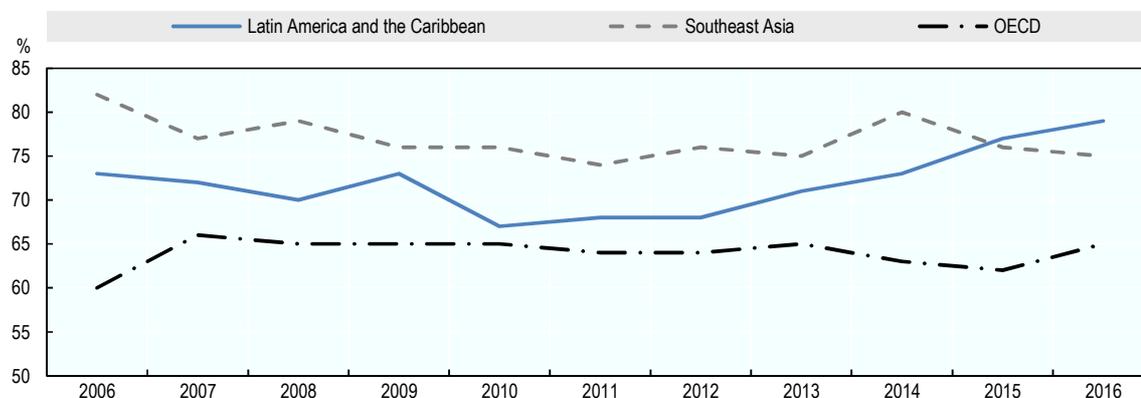
The composition of employment in the LAC region is shifting away from wage employment to non-wage employment. The regional share of urban employment for own-account<sup>2</sup> workers has continued to rise, from 21.6% in 2013 to 23.6% in 2016, while the proportion of employees dropped from 64.6% to 63.4% over the same period (ILO, 2017a). Informality continues to affect the region, with 55% of the working population – about 140 million individuals – working in the informal sector (OECD/CIAT/IDB, 2016).

## **BUSINESS CONFIDENCE IN LATIN AMERICA**

### **The erosion of public trust poses a risk to the region**

The share of the Latin American population having little or no trust in government has risen 20 percentage points since 2006, reaching 75% in 2017 (OECD/CAF/ECLAC, 2018). Although the whole region has observed this downward trend, it varies among countries. In Argentina and Uruguay, for example, the share of citizens expressing confidence in their governments is above 40%. On the other hand, the figure drops below 30% for countries such as Brazil, Colombia, Mexico and Peru (OECD/CAF/ECLAC, 2018). Recent incidents of corruption that have affected the region further exacerbate Latin Americans' poor perception of their governments. In 2016, 80% of the LAC population perceived corruption to be widespread in government institutions, up from 65% in 2010 (Figure 3.3).

Figure 3.3. Perception of corruption in government in Latin America, Southeast Asia and OECD



Source: OECD/ECLAC/CAF (2018), *Latin American Economic Outlook 2018: Rethinking Institutions for Development*, based on Gallup (2017), World Poll, <http://www.gallup.com/services/170945/world-poll.aspx>.

Lack of trust in government can cause citizens and businesses to disengage from the state. This can in turn lead to informal employment practices, avoidance of public services, resistance to paying taxes and reduced compliance with civic obligations – or even to social uprisings. Lack of trust in government can further hamper economic development by weighing down on investment and consumption (OECD, 2017a). For instance, OECD research has shown a positive relationship between inward FDI and the quality of a country’s governance (OECD, 2006). Institutional credibility is therefore key in supporting investment.

#### Low public trust in government can push Latin Americans towards informal employment

Incentives to participate in the formal economy are lower if trust in the capacity of the state to provide quality public goods and services has been eroded. As such, poor perceptions of public institutions can give rise to a culture of informality. Fifty-five percent of workers in the region did not contribute to pension or healthcare programmes (EPRS, 2016). These levels of informality can be detrimental to the establishment of a competitive business climate. Informal employment leads to reduced productivity and lower skill levels, both key concerns to firms throughout the region (OECD, 2016b).

#### Dissatisfaction has led to public service avoidance

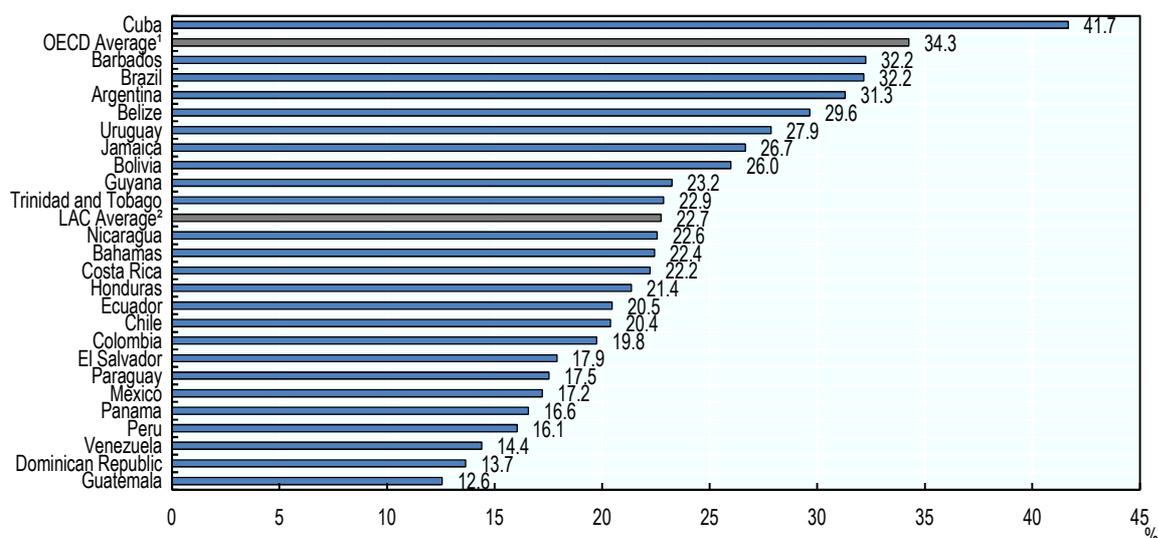
Discontent with public services in Latin America is generalised across income groups. The share of the population satisfied with the quality of healthcare services fell from 57% to 41% between 2006 and 2016 (OECD/CAF/ECLAC, 2018). Other public services display a similar trend. High levels of dissatisfaction have led individuals with sufficient resources to opt out of public services. For instance, enrolment in private schools in LAC for the first income quintile is 6.1%, versus 48.8% for the fifth quintile (OECD/CAF/ECLAC, 2018). Citizens opting out of public services further erodes the social contract. Moreover, it raises questions as to how the private sector can play a role in addressing this issue.

### Tax evasion adds to fiscal pressures

In 2015, Value Added Tax (VAT) evasion and income tax evasion in LAC totalled USD 340 billion, representing 6.7% of regional GDP (ECLAC, 2018). In addition, tax morale (i.e. the willingness of citizens to pay taxes) has decreased in recent years: in 2015, 52% of the population justified not paying taxes if possible, relative to 46% in 2011. This is particularly relevant in a region where the average tax-to-GDP ratio stood at 22.7% in 2016, well below the OECD average of 34.3% (OECD et al., 2018). In fact, all LAC countries except Cuba have tax-to-GDP ratios below the OECD average (Figure 3.4). This creates additional fiscal pressure on LAC governments. As a result, Brazil, Argentina and Costa Rica, which hold the highest public debt levels (at 74.0% for Brazil, 53.7% for Argentina and 48.8% for Costa Rica) (ECLAC, 2018), risk a further deterioration of their fiscal profiles (Moody's Investors Service, 2018). The reduced fiscal space that many Latin American countries face can be exacerbated further by the normalisation of monetary policy and an increase in interest rates in developed countries (Moody's Investors Service, 2018). In a context of low taxation rates and anticipated decreases in public revenues due to lower commodity prices, tax evasion is an additional risk for the solvency of certain governments in the region. Improvements in fiscal structures that enhance effective tax collection capabilities can help LAC countries regain fiscal space (ECLAC, 2018).

Figure 3.4. Tax-to-GDP ratios in LAC countries, 2016

(total tax revenue as % of GDP)



Source: OECD et al. (2018), *Revenue Statistics in Latin America and the Caribbean*, [https://www.oecd-ilibrary.org/taxation/revenue-statistics-in-latin-america-and-the-caribbean\\_24104736](https://www.oecd-ilibrary.org/taxation/revenue-statistics-in-latin-america-and-the-caribbean_24104736).

In collaboration with the Inter-American Center of Tax Administrations (CIAT), the IDB and member countries, the OECD is working to combat tax evasion in the region by supporting local tax authorities in the application of the OECD Transfer Pricing Guidelines, promoting the exchange of information (OECD, n.d.).

Lingering fiscal imbalances in the region can be of particular significance for businesses, as governments may opt to increase the fiscal space by implementing corporate tax increases. This, however, can negatively affect investment prospects as businesses grow weary of potential tax raises.

### **Civic disengagement and social uprisings are weighing down on certain Latin American countries' growth prospects**

The growing disconnect between Latin American states and their citizens, illustrated by the erosion of trust and satisfaction levels described above has fuelled civic disengagement. Instances of social uprising in Venezuela, Mexico, or Brazil highlight deepening social fractures and rising anti-government sentiments facing the region (Dumitru, 2017). Weakened democratic robustness creates uncertainty for business. It is happening as Latin America faces one of the most important electoral marathons in recent decades, with 12 presidential elections taking place in 2018 and 2019. Although this provides the region with a unique window of opportunity for much-needed reforms, such a period of transition can also generate uncertainty for business decision-makers and thus potentially delay new investment plans (Zovatto, 2017).

### **The business climate in the region remains challenging**

Although the region has made progress implementing structural reforms supportive of a healthy and stable business climate, improvements are still required. Firm competitiveness remains a central challenge to Latin American economies. In fact, large gaps in all analysed areas of competitiveness persist, notably as they relate to institutions, infrastructure, labour market efficiency and innovation (WEF, 2018a). The World Economic Forum's Executive Opinion Survey, which gathers insights from business leaders across the world, ranks the types of risks that are of concern to business leaders. In Latin America, national governance failure ranks highest among risks, followed by high unemployment and social instability (Marsh & McLennan Companies/WEF, 2017). Issues of corruption in Brazil, corporate governance in Mexico and the breakdown of national governance in Venezuela all are sources of uncertainty that pose significant business risk. Consequently, the Latin American landscape remains a comparatively challenging environment for companies to navigate. The potential to gain from improvements in key areas, such as regulation, transparency and public services, is significant. Public institutions can play a crucial role in supporting a business climate that underpins a virtuous cycle of business opportunity, investment and growth.

### **Weakness in regulatory systems is a significant hurdle for businesses**

Regulation is one of the more important levers by which governments can support efforts to enhance competitiveness, raise productivity and reduce the administrative burden on business. The World Bank, in its annual *Doing Business* report, assesses the quality of business regulations in countries around the world by reference to best practices. The World Bank found that the LAC region scored lower than OECD countries, Europe and Central Asia. It also underperformed East Asia and the Pacific in terms of ease of doing business (World Bank, 2018b). Similarly, the OECD indicator of product market regulation (PMR) shows that business regulations are significantly more restrictive in the LAC region than in OECD countries (World Bank, 2018b).

Pro-competitiveness reforms can encourage companies to be more innovative, to invest more and thereby lift productivity (OECD/IDB, 2016). To this effect, the OECD promotes the systematic employment of stakeholder engagement, cost-benefit analyses and ex-post evaluations throughout the design and implementation phases (OECD, 2017a). OECD estimations show that efficient pro-competitive product market reforms could raise GDP in Argentina, Mexico, Chile and Brazil by more than 20% by 2060 (OECD, 2015a).

With this in mind, LAC countries have worked towards increasing the quality of their regulatory systems. This is, for example, the case for Mexico, which initiated a broad competition policy reform programme in 2013. The programme aims to enhance the ability of firms to compete effectively in markets. It also supports innovation, efficiency and productivity in the telecommunications sector (OECD, 2017b). Despite these efforts, LAC has shown the least convergence with best practices in terms of regulatory factors when compared with East Asia and the Pacific and with sub-Saharan Africa (World Bank, 2018b).

### **Corruption and a lack of compliance with the rule of law continue to present a risk for businesses**

Corruption continues to make headlines in Latin America. In 2015, only 15% of the Latin American population did not believe that extensive corruption was present in their own governments (Latinobarómetro, 2015). The situation has recently deteriorated, with perceptions of corruption across Latin America rising: more than 60% of the region's population thought that corruption increased from 2015 to 2016, with that figure reaching 87% in Venezuela, 80% in Chile and 79% in Peru (Transparency International, 2017).

Similarly, analysis shows that compliance with the rule of law is low in LAC countries. Indeed, the regional average on the World Justice Project's Rule of Law Index, measuring rule of law adherence in 113 countries and ranging from 0 (low) to 1 (high), stands at 0.58. This is way below the OECD average of 0.74 (OECD, 2018c). Weak legal enforcement can increase risks of corruption and lead to an even more complex business landscape.

These issues come at an economic and social cost. Estimates show that the annual cost of corruption amounts to 5% of global GDP or USD 2.6 trillion. Corruption also increases the cost of doing business by up to 10% on average (OECD, 2014a). Not only does corruption create an additional direct cost for business as represented by bribes, it also brings risk in the form of potential prosecution, penalties, blacklisting and reputational damage (OECD, 2014a). Ultimately, corruption and a weakened rule of law act as a tax on corporate activity and, in the LAC context, have the effect of discouraging private investment (IMF, 2016b). At a broader level, lack of transparency creates market distortions through an erosion of fair competition, which stifles future business opportunities (OECD, 2014a).

### **The persisting skills mismatch remains a barrier to business growth**

Human capital and skills are essential to the advancement of social cohesion, boosting aggregate labour productivity and improving companies' capacity to seize market opportunities. Globally, Latin America remains the region with the largest skills gap (IDB, 2017a). More than 50% of firms in the region continue to experience difficulty filling jobs, a rate that is far above the OECD

average (36%) (ManpowerGroup, 2015). Despite improvements in educational outcomes, Latin American countries rank at the bottom of the OECD's Programme for International Student Assessment's (PISA) proficiency distribution (OECD, 2018d). Furthermore, technological progress is rapidly transforming the nature of jobs, with low-skilled workers and youth being among those most at risk (OECD, 2018e). This also shifts the demand for skills, requiring workers and companies to adjust (ManpowerGroup, 2016). Technological change can further exacerbate the lingering educational shortcomings of LAC countries. This risks increasing the divide between labour market needs (particularly for businesses) and the pool of available skills (IDB, 2017a). Without an adequate policy response, the region's persisting skills mismatch can become a barrier to job opportunity for LAC citizens, as well as an obstacle to firms' overall productivity (IDB, 2017a).

### **The emergence of the middle class: challenges and opportunities**

In the 15 years following the turn of the century, LAC economies have known an extended period of socio-economic progress. The share of the population living in poverty dropped from 43% to 24% between 2000 and 2015. In addition, measurements of well-being beyond income, such as health, education and equality issues, have significantly improved (UNDP, 2016). The percentage of the population earning USD 10-50 per day (2005 purchasing power parity), considered a benchmark for the middle class, rose from 21% in 2000 to 35% in 2015 (OECD/CAF/ECLAC, 2018). As such, the rise of the middle class in the LAC region has been one of the major positive socio-economic transformations of recent times. This has given way to a new consumer class with more sophisticated needs and greater expectations in terms of goods and services. It has also brought new challenges and opportunities to the region's public and private sectors.

### **The growing middle class presents new market opportunities for businesses**

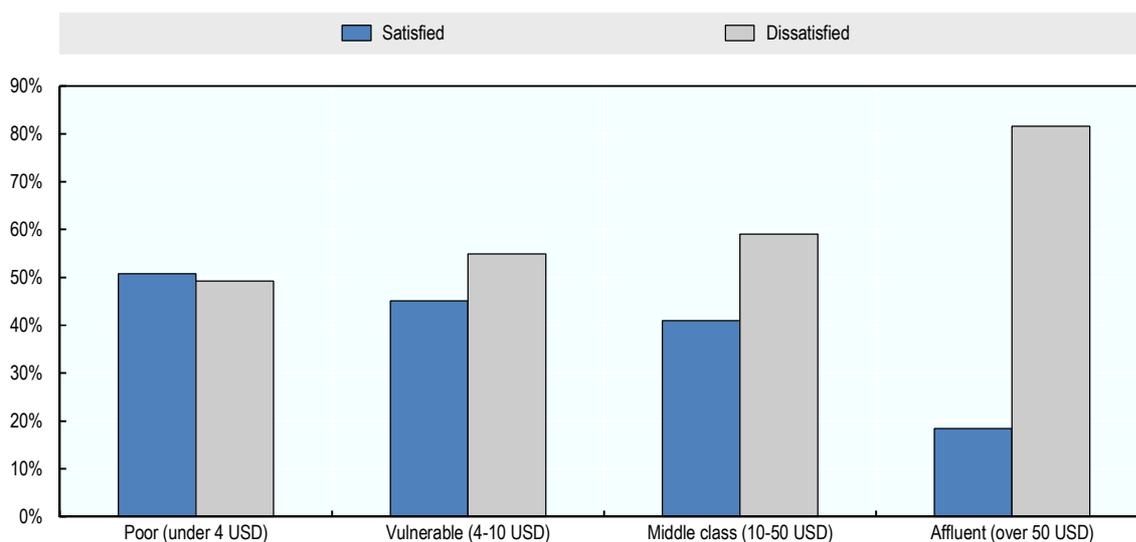
The emergence of a new middle class has brought new opportunities for businesses operating in the region. Economic growth since the turn of the century, coupled with an increase in average earnings and a decrease in poverty levels in nearly every country, has propelled domestic incomes upwards, supporting domestic demand (ECLAC, 2017b). These trends present lucrative opportunities for many businesses, as this category of consumer represents a major evolving market, consuming close to USD 500 billion per year (Price, 2016). Together with the growing demand, the region has experienced a shift in focus for business models. Traditional bottom of the pyramid (BoP) models of low price, low margin and high volume, which can be difficult to implement (Simanis and Duke, 2014), have been replaced by a strategic targeting of middle-income consumer groups (Euromonitor International, 2014). This segment has sufficient spending power to consume non-essential goods (Euromonitor International, 2014). Thus, this emerging consumer class can respond to more sophisticated, higher-margin products and services, which present significant opportunities for the private sector (Euromonitor International, 2014). Companies are increasingly required to offer a broad range of goods and services tailored to local tastes, and to provide good customer service and consistent quality standards in response to the new demand (Euromonitor International, 2014). It is therefore important for governments to recognise their evolving domestic markets and to adequately adjust policies for companies to properly respond to this new demand.

### Rising aspirations increase pressure on governments to deliver public goods and services

With rising living standards, LAC's middle-class citizens have become more demanding of their governments to deliver on public goods. LAC governments continue to struggle in catering to the needs of their citizens, leading to growing public frustration. Perceptions of public services have deteriorated. Dissatisfaction with public education was reported by 47% and public health services by 56% of the LAC population, as compared with figures of 46% and 52% for 2012 (USAID/LAPOP, 2017). This is well above levels in OECD countries (stable at around 30% for both education and health) (OECD, 2017a).

Discontent with public services is widespread throughout Latin American societies and this discontent increases with income. While 55% of the vulnerable middle classes have expressed dissatisfaction with health services, this figure exceeds 80% for the affluent classes (Figure 3.5). These high levels of dissatisfaction have led large numbers of Latin Americans to opt out of public services completely. (OECD/CAF/ECLAC, 2018).

Figure 3.5. Satisfaction with public health services by socio-economic group, 2015



Note: Percentage of responses to the question: "Are you very satisfied, satisfied, dissatisfied, or very dissatisfied with the quality of public medical and health services?" Satisfied represents the sum of those who answered to be "very satisfied" and "satisfied" with the public medical and health services, while dissatisfied is the sum of the "dissatisfied" and "very dissatisfied", categorised based on daily per capita income (USD). Source: OECD/CAF/ECLAC (2018), *Latin American Economic Outlook 2018: Rethinking Institutions for Development*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/leo-2018-en>.

Providing public goods and services is an essential component of government action. Improving the quality, access and responsiveness of public services can be a key lever to restore trust in government (OECD, 2017c). In response to surging demand for better public goods, and given the private sector's know how, partnerships between the public and private sectors can become an attractive option in improving services. PPPs, which have traditionally focused on transportation, telecommunications and energy, have now started to include social infrastructure sectors such as

healthcare (PwC/UCSF, 2015), educational and prison facilities and e-governance (AKE, 2017). New partnerships can facilitate the mobilisation of previously untapped resources and develop more innovative solutions. PPPs, when properly implemented, can therefore be effective solutions for governments responding to rising and more sophisticated demand from citizens in a context of increased fiscal constraints.

### **Public institutions can play a crucial role in restoring business confidence and reviving investment**

Strengthening institutions in the region can restore business confidence and support investment. In order to promote investment more effectively, LAC governments will need to adopt predictable and transparent processes, increase accountability, and provide a framework that allows stakeholders to participate in policy development (UNCTAD, 2004).

As described above, firms operating in the LAC region are facing a number of challenges. A subdued growth outlook, low levels of trust and a challenging business climate all contribute to hampering business confidence and investment. Latin American governments can play a critical role in providing the policy frameworks to open up new business opportunities. Strengthening institutional governance will therefore be essential in supporting business growth throughout the region (Bayar, 2016).

Business regulations have a key role to play in unlocking investment. By promoting open and competitive markets and creating level playing fields, governments throughout the region can incentivise investment and reduce business risk. Measures such as establishing independent competition authorities, reducing state intervention and abolishing overly restrictive competition policies all contribute to more competitive markets. Not only can this revive investment but it can also boost productivity and encourage innovation (OECD, 2016b).

Recent episodes of corruption and low levels of compliance with the rule of law, both of which generate uncertainty, also burden the investment climate. Governments throughout the region can tackle these issues by strengthening public institutions and by promoting accountability and a coherent integrity system and strong, independent judicial institutions. All of these factors will contribute to broader compliance with the rule of law.

Institutions also have a role to play in addressing the region's low levels of productivity. Enhancing integration through regional trade agreements and trade facilitation measures will help counteract the negative impacts of an increasingly complex global trade landscape. At the same time, an adequate supply of skilled workers will have a direct impact on firm productivity. This will require a revision of education systems such as to better adapt to rapid technological changes and evolving labour market requirements. Public-private collaboration in the design of vocational education training programmes and use of labour market information can provide a solid framework for skills development. It will be essential also for governments to address productivity challenges in collaboration with the private sector if competitiveness and investment are to be advanced.

## **PRIVATE SECTOR INSIGHTS ON INSTITUTIONAL STRENGTHENING, BUSINESS CONFIDENCE AND INVESTMENT**

This section includes insights and recommendations from the private sector drawn from the EMnet meeting on Latin America on 28 May 2018 in Paris, in addition to desk research and bilateral discussions with EMnet members and other private sector representatives. Participants at the meeting highlighted the critical role that public institutions play in establishing conditions propitious to investment. In particular, companies highlighted the need for institutions to provide a supportive business environment. Public-private collaboration was an important component in this process, as was the need to address evolving labour market requirements. Both were seen as critical in the bid to attract investment to the region.

### **Creating a supportive business environment**

Latin America is undergoing a modest recovery after a two-year recession. However, persistent macroeconomic volatility, security issues and regulatory barriers can hinder the development of a favourable investment climate. Public institutions can play a crucial role in enhancing the level of business confidence that underpins a virtuous cycle of investment, growth and opportunity, particularly during times of transition (OECD/CAF/ECLAC, 2018).

### **Macroeconomic stability as a key factor in attracting investment**

Participants in the EMnet meeting emphasised the need for public institutions to ensure the macroeconomic stability of their economies. Indeed, sound macroeconomic policies that sponsor growth and provide a more stable environment can play a pivotal role in defining companies' investment plans. Economic volatility depresses the overall investment climate, especially in developing countries (Pindyck and Solimano, 1993). Companies highlighted macroeconomic indicators such as inflation rates, public debt levels, GDP growth rates and currency exchange rates as factors influencing their investment decisions.

Latin American economies continue to face a number of macroeconomic issues that pose risk to investors. As a result, several LAC countries have seen their sovereign credit ratings lowered, including Brazil<sup>3</sup> (Reuters, 2018) and even Chile<sup>4</sup>, the region's highest-rated sovereign debt holder (Slattery, 2017). These credit rating downgrades reflect in part macroeconomic instability, thus highlighting the need for LAC governments to prioritise the macroeconomic management of their economies.

In the past, some of the region's countries have faced challenges in trying to mobilise fiscal policy as a tool for macroeconomic stabilisation. LAC countries have typically employed pro-cyclical fiscal policy elements, increasing the risk of overheating during boom times and creating the conditions for consequent deep recessions (World Bank, 2017a). Such fiscal policies not only deteriorate a country's fiscal status, they can also amplify the volatility of the business cycle, which continues to present a source of concern for the private sector. Indeed, 28 out of 32 countries in the region showed a negative overall fiscal balance in 2017, with a median fiscal deficit of 3.1% of GDP (World Bank, 2017b). As such, fiscal crises rank as one of the top five risks in doing business in the LAC

region, according to the World Economic Forum's Executive Opinion Survey (Marsh & McLennan Companies/WEF, 2017).

Participants affirmed that exchange rate volatility and high inflation can adversely affect investor confidence. For instance, in response to a sharp fall in the peso in Argentina, which reached an all-time low of 26 pesos to the dollar in June 2018 (Trading Economics, 2018), the central bank hiked interest rates by more than 600 basis points to establish a benchmark rate of 40%, the highest in the world at that point (Martinez and Gilbert, 2018). This in turn has had a significant impact in terms of investor confidence and as a consequence, on the country's attractiveness as an investment destination (Rapoza, 2018). Participants agreed that the decline in business confidence in LAC institutions' ability to manage their economies, compounded by financial instability, was weighing on consumer spending, increasing uncertainty and deterring corporate investment (Ciżkowicz and Rzońca, 2013).

Policy makers that can establish a track record of sound macroeconomic policy can generate business confidence, which will in turn support investment (IMF/World Bank, 2001). With the improving global and regional outlooks, LAC governments are being given an opportunity to improve the macroeconomic management of their economies. Space for monetary policy is opening up, with lower inflation rates in certain economies, while limitations remain with regard to fiscal policy (OECD/CAF/ECLAC, 2018). Efficient fiscal and monetary policies, as well as stronger institutions, in particular central banks, can be fundamental in ensuring economic stability and thus generating investor trust in the region.

### Resolving insecurity issues

The LAC region continues to suffer from issues related to insecurity and violence. It remains the most violent region in the world, with 24 homicides per 100 000 inhabitants – more than four times the global average (IDB, 2017b). Although only 8% of the world's population lives in Latin America, 33% of total homicides in the world occurred in the LAC region in 2015 (Muggah and Tobón, 2018). This not only has social implications, as citizens in Latin America rank security as the most pressing problem (Latinobarómetro, 2016), but has economic consequences also. The total cost of crime in the LAC region is estimated conservatively at 3% of regional GDP. This represents a total cost of USD 236 billion (IDB, 2017b).

Participants concurred that this economic cost is often borne by the private sector. They stressed the need to place security at the centre of economic policy priorities. Crime, violence and a lack of security affect businesses through direct loss (from theft or fraud, for instance) or through expenses related to private security. Insecurity can have a corrosive effect on competitiveness and act as a deterrent for firms looking to invest in the region. According to the World Bank Enterprise Survey, businesses in the LAC region reported losing 3.6% of annual sales due to crime (IDB, 2017b). Over and above economic loss, crime and violence further erode trust in public institutions (OECD/CAF/ECLAC, 2018). The OECD has underlined that low levels of public governance, such as poor human resource management of security services, have caused security initiatives to fail in the region. Security service employees, for instance, tended to be less educated than the rest of the public sector (OECD/CAF/ECLAC, 2018).

Although security-related public spending in LAC is similar to levels in the United States and the United Kingdom (1.45% of GDP), average private spending on security was estimated at between 0.81% and 1.37% of GDP in 2014 – double the rate for the US and the UK (IDB, 2017b: 23). In addition to costs incurred to ensure the security of their assets and employees, companies are sometimes required to face public safety challenges incurring a different type of cost. A case in point, for example, is the telecommunications sector, where a number of Latin American countries have imposed network service restrictions or signal inhibitors to prevent communications in prisons or other prohibited areas. In Guatemala, mobile operators are required to implement technical solutions that interrupt mobile telecommunications in and around prison facilities (GSMA, 2014). The use of such devices causes extensive network disruption, affects service quality, and can put public safety at risk if emergency services cannot function properly (GSMA, 2014). Other measures that LAC governments have implemented to tackle these issues – thereby raising concern for businesses and acting as a deterrent to investment – include sector-specific taxes described as contributing to the cost of public security. In Honduras, the 2011 Law on Citizen Security established a Special Contribution from the Mining Sector, levied at 2% of the free on board (FOB) value of mineral exports to finance citizen security (IDB, 2013). Similar to spending on security services, these indirect costs can weigh on investments and create a barrier to growth in the affected business sector.

Participants in the EMnet meeting emphasised the need for governments to find more effective solutions to tackle insecurity and violence. More specifically, policies should avoid creating asymmetries if they are to allow for better functioning markets. Research by the IDB has shown that earmarked taxes<sup>5</sup> are more sustainable the more moderate the rate and the broader the base (IDB, 2013). Meanwhile, the public security objectives of LAC governments can be more easily achieved through greater spending efficiencies and more targeted levies. Latin American security policies should be comprehensive, be subject to rigorous performance evaluation, and be the result of multi-year planning strategies (IDB, 2013). Businesses agreed that the private sector had a valuable contribution to make in supporting these efforts. A joint approach to finding solutions was preferable in addressing the complexities of the issue and would promote confidence and create investment opportunities.

Companies noted that it was important not to impose additional burdens on the private sector, citing as examples the mobile restrictions enforced in Guatemala and special mining sector levies in Honduras as part of those countries' attempts to deal with crime and insecurity.

### **Implementing effective business regulations**

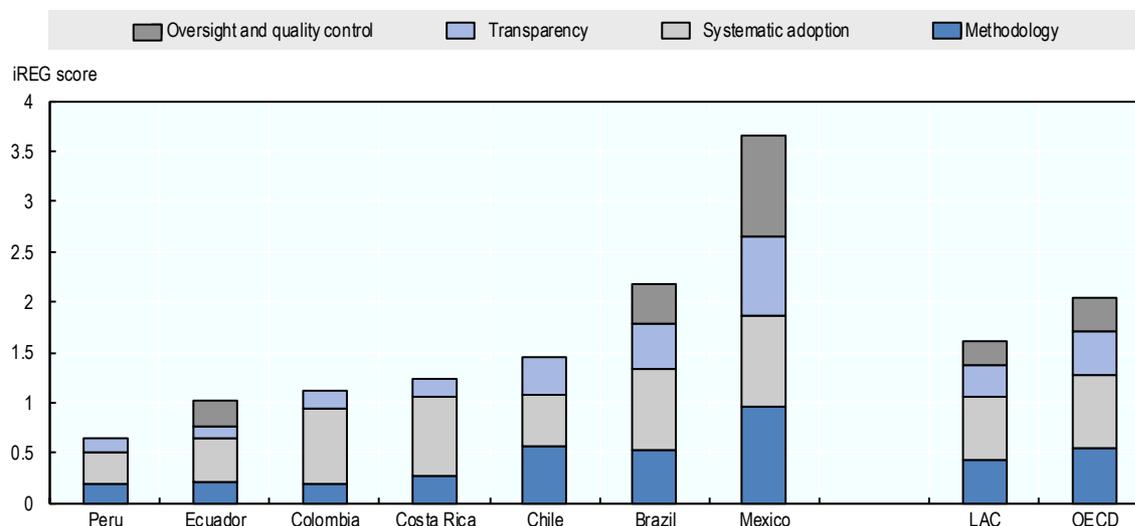
Strengthening regulatory policy can give rise to considerable economic gains. Not only do adequate regulatory reforms increase firm competitiveness and productivity, they can also benefit end consumers by achieving lower prices (OECD, 2016b). Participants pointed to the example of Mexico, where reforms in the telecommunications sector led to enhanced competition and a reduction in consumer prices of more than 25%, benefiting both consumers and businesses (OECD, 2017b).

In particular, participants emphasised the need to establish a field that reduces distortions in Latin American markets as a way to rebuild business confidence. New digital technologies and more

sophisticated consumer demand are generating disruptive innovations and pushing companies to develop new business models (OECD, 2016c). In this context, firms recommended that public regulators take note of business models involving new industry actors and new technologies. A case in point was the taxi industry, with Uber showing penetration into several Latin American markets (OECD, 2016c). Similar disruptions are creating change in the financial services sector, with the rise of mobile payment systems now competing with more traditional banking services (OECD, 2016c). These market disruptions have the potential to generate significant economic gains and enhance productivity (WEF, 2016). However, competition authorities must be able to provide the appropriate regulatory framework to allow LAC economies to reap the benefits fully (OECD, 2016c). EMnet members participating in the meeting advocated a flexible approach to regulatory policy. They also recommended the development of early-stage efforts to identify competition issues related to market disruptions, in line with OECD perspectives (OECD, 2016c). To this effect, the OECD is currently working with Chile, Colombia, Costa Rica, Mexico, Panama and Peru to assist these countries in undertaking market studies that will help competition authorities analyse and respond more effectively to market distortions and new developments (OECD, 2015b).

Companies also stressed the necessity of including the private sector, among other actors, more systematically in the design and permit-issuing stages of regulatory policy in order to ensure coherence and transparency. Stakeholder engagement is fundamental to the development of sound regulatory policies because it enhances the quality of regulations by gathering feedback from parties interested in and affected by them. It also increases compliance levels (Querbach and Arndt, 2017). Countries in Latin America differ in the adoption of good practices in this area. While Mexico and Brazil have adopted effective consultation systems on a par with, or even arguably better than, the OECD average, other countries, such as Peru and Ecuador, continue to lag behind (Figure 3.6).

Figure 3.6. **Composite indicator: Stakeholder engagement in developing subordinate regulations in selected LAC countries**



Note: The figure displays the total aggregate score across the four separate categories of the composite indicator. The maximum score for each category is one and the maximum score for the aggregate indicator is four. The more regulatory practices as advocated in the 2012 OECD Recommendation on Regulatory Policy and Governance a country has implemented, the higher its indicator score. The data on LAC countries reflect the situation as of 31 December 2015. Data on OECD countries cover 34 OECD countries and reflect the situation as of 31 December 2014.

Source: Indicators of Regulatory Policy and Governance (iREG) for Latin America 2016. Indicators of Regulatory Policy and Governance (iREG) 2015. <http://www.oecd.org/gov/regulatory-policy/indicators-regulatory-policy-and-governance.htm>.

### Addressing Latin America's tax landscape

Companies pointed to the taxation regime as a significant hurdle to doing business in the LAC region. More precisely, participants highlighted the prevalence of discriminatory taxation, which not only adversely affects business growth where taxes cut into profits, but can also come at a cost to the end consumer in the form of higher prices.

Throughout the region, sector-specific fiscal pressures weigh down on certain industries, and companies see this as setting up asymmetric market conditions. Excise and other indirect taxes applied to a narrow set of goods and services at increasingly higher rates are gaining in popularity in Latin America (EY, 2017a).

The case of El Salvador was highlighted in a reference to taxation of the telecommunications sector. The country implemented a special tax in 2015, the Contribución Especial para la Seguridad Ciudadana y Convivencia (CESC), which is levied at a rate of 5% on the pre-tax value of telecommunication services and equipment (determined according to the law). The tax was intended to address insecurity issues in the country (GSMA/Deloitte, 2017). As a result, in addition to several other taxes and regulatory fees – including, for example, payments linked to spectrum assignment, renewal and rights of use, which were discussed by participants – the mobile sector's contribution to government tax revenue was 1.7 times higher than the market's size<sup>6</sup>

(GSMA/Deloitte, 2017). Indeed, the telecommunications sector contributed around 4.5% of GDP in taxes and regulatory fees, despite accounting for just 2.7% of GDP in sales (GSMA/Deloitte, 2017). Similar excise duties on telecommunications exist in other LAC countries, such as Panama (5%), Colombia (5%), Argentina (4%) and Mexico (3%) (GSMA/Deloitte, 2017).

EMnet participants stressed that such sector-specific taxes may cause inefficiencies in LAC economies and discourage investment. This argument has also been supported by recent OECD work, which highlights the pervasiveness of special provisions and differentiated tax regimes as a barrier to the efficient allocation of investments (OECD/CAF/ECLAC, 2018). Some participants also stressed the need for authorities to avoid tax discrimination based on product origin. Participants argued that new regional industry players, even if not physically located in Latin America, should be subject to the same fiscal obligations as their more established counterparts with local footprints.

Business participants highlighted examples in the alcohol beverage industry, where specific tax discriminations against foreign products have been resolved through international policy dialogue. An example was Colombia's introduction of non-discriminatory tax reforms for distilled spirits, following recommendations linked more specifically to the OECD in this regard (OECD, 2014b). Participants, encouraged by these efforts, proposed that they continue across the region.

Companies also discussed the relevance of having a local presence, in light of new trends brought on by digital technologies. They noted a perceived lack of consensus regarding a geographic link between value creation and tax liabilities that fits traditional fiscal models. The OECD recognises a number of these challenges, including more specifically the appropriate allocation between countries of taxes derived from cross-border digital activities (OECD, 2018h). The work of the Task Force on the Digital Economy (TFDE), which includes all OECD and G20 member countries, has presented options that can help individual countries address some of the challenges arising from digitalisation. These options include, for example, creating a new nexus rule in the form of a "significant economic presence" test (OECD, 2018h).

Further to this work, recent evidence suggests that some multinational enterprises engaged in digital business have already begun to align corporate structures more closely with economic activity. Nevertheless, it is recognised that challenges remain, and that there is indeed no consensus around the need to enhance OECD/G20 BEPS (Base Erosion and Profit Shifting) recommendations so that they more broadly address some of the tax liability challenges (e.g. double non-taxation) posed by digitalisation (OECD, 2018h).

In line with OECD recommendations (OECD/CAF/ECLAC, 2018), companies also expressed support for tax policy reforms that broaden the tax base. In 2015, 57% of income tax was collected as corporate income tax (CIT) while that figure reaches 32% for the revenue generated by personal income tax (PIT). This contrasts heavily with OECD countries, where 72% of income tax originated from PIT and 26% from CIT (OECD et al., 2018). With the exception of Mexico, workers in LAC countries do not pay any personal income tax at the average wage level (OECD/CIAT/IDB, 2016), highlighting potential room for reform in the tax structure and tax collection system.

## Generating business confidence through trade integration

Business confidence<sup>7</sup> reflects firms' assessment of current and future opportunities. Participants noted that opening up trade through trade facilitation measures and free trade agreements (FTAs) can be effective at generating market opportunities and increasing levels of business confidence.

These trade liberalisation and facilitation measures provide businesses operating in the region with an institutional framework propitious to doing business on a larger scale – both regionally and internationally. However, non-tariff barriers have been proliferating, while domestic factors such as quality of infrastructure and logistics services, as well as efficiency of customs management, continue to constrain trade integration (IMF, 2017c).

Some LAC countries have made significant strides in this regard. Argentina, for instance, has implemented a number of trade facilitation measures, removing export restrictions on several products. Indeed, the country completed its ratification process for the Trade Facilitation Agreement (TFA) in January 2018, with the objective of eliminating bureaucratic delays and reducing red tape (WTO, 2018). Similarly, Mexico has made notable progress in opening up to trade. The country has signed agreements with 46 countries, while barriers to services trade have been reduced in key sectors, such as media and telecommunications (OECD, 2017b). Another example of successful trade policy can be found in Costa Rica, which has introduced a free trade zone (FTZ) regime in order to boost exports (OECD, 2016d). These FTZs, supported by Costa Rica's three trade promotion agencies (COMEX, CINDE and PROCOMER), have made an important contribution to exports. Indeed, between the mid-1990s and 2014, the share of goods exported by firms located in the FTZs rose from 12% to more than half of the total value of goods exported, which more than tripled over the same period (OECD, 2016d).

Throughout the region, Latin American countries are progressing towards greater trade integration by establishing trade platforms. Among these, the most notable are the Mercosur and the Pacific Alliance. Combined, these trade platforms represented more than 80% of the region's foreign trade and more than 90% of regional GDP and FDI flows in 2014 (ECLAC, 2014). The Pacific Alliance trade pact removed tariffs on 92% of commercial products between Chile, Colombia, Mexico and Peru, with the intent to remove the remaining 8% in less than seven years (EY, 2017b). These two trade blocs (Box 3.1) are meeting regularly to discuss ways in which they can deepen economic ties and explore possibilities for co-operation (OECD/CAF/ECLAC, 2018).

Participants emphasised that these efforts to boost both intra- and extra-regional trade can generate business confidence and support private investment. They also emphasised that promoting trade openness is essential in responding to evolving consumer demands, as Latin Americans increasingly look for premium products. While the total Latin American consumer market grew by 7.5%, the premium brand market grew by 9.2% in 2016 (Nielsen, 2017). Similarly, more than 50% of the so-called Millennials and Generation X in the region are more open to innovative products that their markets cannot provide (Nielsen, 2017).

### Box 3.1. Latin America's largest trade platforms: Mercosur and the Pacific Alliance

#### **Mercosur**

Mercosur was founded in 1991 by Argentina, Brazil, Paraguay and Uruguay, which remain permanent members, while Venezuela's membership has been suspended since 2016, after being approved in 2012. Bolivia, Chile, Colombia, Ecuador and Peru are associate members. Mercosur acts as a customs union and a free trade bloc. It allows free trade (except on the automobile industry and sugar). The group accounts for 295 million people and USD 3.5 trillion in GDP.

#### **Pacific Alliance**

The Pacific Alliance was founded in 2011 by Chile, Colombia, Mexico and Peru. The group accounts for approximately 37% of Latin America's GDP and 50% of exports. It is a trade bloc that pursues commercial, economic and political integration among member countries. It is based on a liberalisation agenda in the areas of trade in goods and services, investment and capital markets.

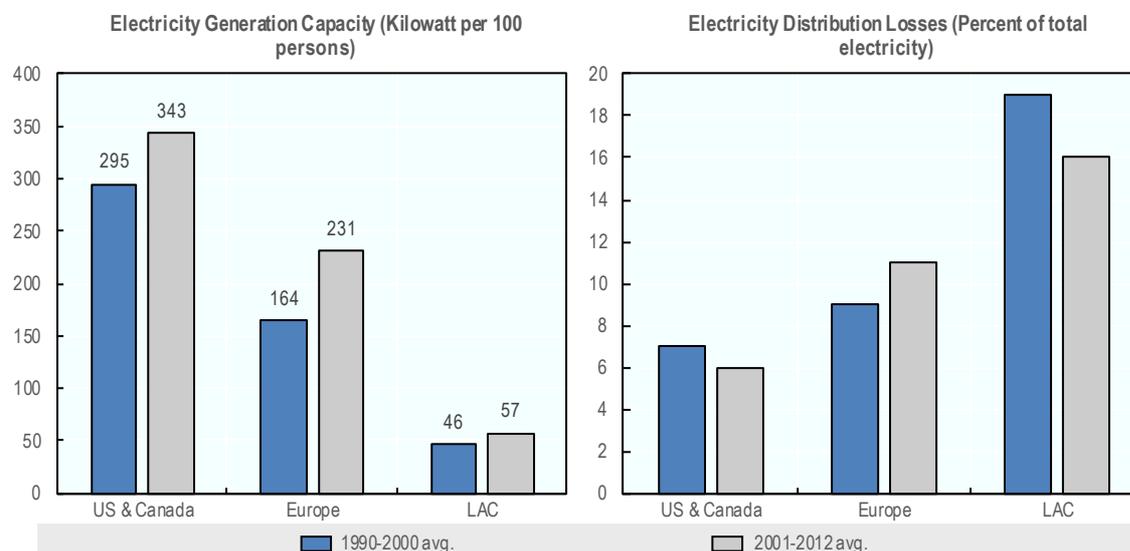
*Sources: OECD/CAF/ECLAC (2018), Latin American Economic Outlook 2018: Rethinking Institutions for Development; Keller (2016), "Explainer: What is Mercosur?", 6 December, Americas Society/Council of the Americas website, <http://www.as-coa.org/articles/explainer-what-mercotur-0>; Etoniru (2015), "What is the Pacific Alliance?", 20 July, Americas Society/Council of the Americas website, <https://www.as-coa.org/articles/explainer-what-pacific-alliance>.*

### The private sector can act as a key partner for LAC governments in restoring confidence and reviving investment

Participants emphasised that improvements in the provision of public goods and services, as well as a reduction in the region's infrastructure gap, are necessary not only to respond to the LAC population's growing and evolving needs but also to restore business confidence and revive investment.

Latin American governments face a dual problem: the higher aspirations of the emerging middle class are increasing the pressure for states to deliver better public goods and services, while many LAC countries' ability to provide them are constrained by reduced fiscal space. Furthermore, the region continues to lag behind advanced economies in terms of infrastructure (IMF, 2016a). This is particularly salient with respect to electricity generation, in which both infrastructure stock and quality fall short when compared with the figures for developed countries (Figure 3.7).

Figure 3.7. World electricity infrastructure indicators



Source: IMF (2016a), *Regional Economic Outlook: Western Hemisphere*, <http://www.imf.org/en/Publications/REO/WH/Issues/2017/01/07/Regional-Economic-Outlook-Western-Hemisphere12>.

In sectors such as insurance services for example, there is a perception expressed by businesses of an evolution in the demands of the middle class in Latin America since the 1990s. In urban centres across the region, businesses see demand for services that are similar to what would be expected in OECD jurisdictions. This level of demand sophistication however is not widespread and less complex insurance products still need to be adapted and proposed outside of this framework.

In responding to this demand, the sector is looking for policy makers in Latin America to guarantee a certain level of macroeconomic stability. This is particularly relevant with regards to managing inflation and price stability, which is a key priority in order to be better able to manage the long-term investments that underscore the effective operations of this sector. While expectations for inflation across the region at the end of 2019 are anticipated at 3.5%, there is wide variability between countries like Mexico (3.3%) and Argentina (27.5%) (Fundación MAPFRE, 2018). Businesses also see a need to enhance general saving levels, which can facilitate investment in projects that can broadly benefit the middle class such as targeted infrastructure initiatives or strengthening pensions.

### PPPs as sponsors of investment and public service improvement

Companies highlighted how PPPs can be effective in sponsoring investment. PPPs can channel new funds into public infrastructure projects, thus freeing up fiscal resources, which can be allocated towards other priority projects (World Bank, 2017c). As well as expanding the fiscal space, PPPs offer the possibility of significantly increasing efficiencies. Collaborating with the private sector on

infrastructure projects can also increase visibility on a project's completion time and budget (World Bank, 2016). The presence of multiple stakeholders, who assume different risks in line with their capacity to manage or diversify them, allows for more effective pricing and risk allocation. This can in turn lead to more efficient outcomes (World Bank, 2017c). PPPs also present an opportunity to benefit from the private sector's expertise, from its innovative capacities and project management competencies, facilitating a transfer of skills to governments or state-owned enterprises (World Bank, 2016).

Previous EMnet discussions have highlighted how PPPs can facilitate the implementation of large infrastructure projects and reduce the cost of such investments. However, if adequate institutional and human capacities are not in place, PPPs can have the inverse effect of propelling such costs upwards (OECD, 2017d).

Countries throughout the region have been using PPPs since the late 1980s with varying degrees of success (World Bank, 2017c). PPPs in LAC countries have traditionally focused on information and communications technology (ICT), energy and transportation. It is noteworthy that one-third of regional investments in infrastructure come from the private sector (OECD/CAF/ECLAC, 2018). Chile leads the region in this development, with 197 projects awarded from 1990 to 2016 worth USD 69.4 billion, ranging from water and sanitation facilities to roads and ports (AKE, 2017).

Participants highlighted the need for LAC governments to provide a clear, predictable and legitimate institutional framework that is supportive of PPPs. The public sector needs to present itself as a solid partner for PPPs and to build institutional capacity accordingly (OECD/CAF/ECLAC, 2018). Companies stressed that key roles and responsibilities should be determined and maintained throughout the project's lifespan, while regulations should be clear, transparent and promote a more competitive landscape. The OECD provides a number of recommendations to this effect, in line with EMnet participants' views, through its Principles for Public Governance of Public-Private Partnerships (OECD, 2012). These recommendations serve as a guideline to allow governments to ensure that "PPPs are met by strong institutions, are affordable, represent value for money and are transparently treated within the national budget process" (OECD, 2012).

Latin American governments are working towards strengthening their PPP regulatory and institutional environments. The Infrascopes Index, which measures a country's capacity to implement sustainable and efficient PPPs in infrastructure on a scale of 0 to 100 (with 100 being the highest), ranks Chile and Colombia as the regional leaders, with both countries scoring 74 (The Economist Intelligence Unit, 2017). Argentina (48/100) stands among the lowest-ranked LAC countries, along with Panama (51/100), the Dominican Republic (49/100), Ecuador (44/100) and Venezuela (8/100) (The Economist Intelligence Unit, 2017). Furthermore, nine LAC countries already have units dedicated to managing PPPs (World Bank, 2018d) and most have taken steps to improve their PPP legal and policy frameworks. Peru, for instance, has enhanced its PPP legal and institutional frameworks by strengthening the independence of the Proinversion agency that promotes private investment in public services and infrastructure through PPPs (Astesiano, 2017). Argentina also implemented a new PPP law in 2016, which regulates aspects of PPP projects in order to stimulate private investments in areas such as infrastructure, housing and services, among others (Herbert Smith Freehills, 2016).

## Fighting corruption and strengthening the rule of law through public-private collaboration

The private sector plays a pivotal role in the fight for greater transparency. As a key actor and a central stakeholder, affecting and affected by this challenge, business will be key in promoting accountability, integrity and supporting a broader culture of transparency. Companies affirmed that the private sector can be instrumental in reinforcing compliance and promoting transparency in Latin America.

Business stakeholders are increasingly playing a role in anti-corruption efforts by making voluntary commitments above and beyond the legal requirements for anti-bribery compliance. For instance, Walmart, the US retailer, has invested more than USD 141 million in its global ethics and compliance systems since 2013. Moreover, it has been pursuing certification under programmes such as the ISO 37001 anti-corruption norm (Krolicki and Bose, 2017).

Companies present at the EMnet meeting stressed that only through public-private collaboration can effective measures be identified and the appropriate steps taken to support a more open and competitive business environment. Multinational corporations, through their day-to-day operations, come into contact with multiple governments and have first-hand experience engaging with a variety of public institutions. As such, the private sector is a pool of knowledge on government processes that can be tapped into and used by governments looking to strengthen the rule of law and to fight corruption in their countries. EMnet participants emphasised that more collaboration and knowledge sharing between the public and private sectors can be key to addressing compliance and transparency issues. An example that was brought forward during the discussions was the World Economic Forum's Partnering Against Corruption Initiative (PACI), a CEO-led platform with approximately 90 global cross-industry signatories that works to bolster trust, integrity and transparency through public-private collaboration (WEF, 2018b).

Meanwhile, participants discussed how institutions must design and enforce rules and regulations that adequately promote more robust anti-corruption behaviour, level the playing field for all stakeholders, and set the highest standards of ethics and good practice. A prime example of institutional efforts to promote transparency can be found in Peru. Following OECD recommendations on Public Integrity and Transparency, Peru created a National Authority for Transparency and Access to Information in 2017. The government created this entity to promote and supervise compliance with the rules of transparency and access to public information (El Peruano, 2017). The OECD's Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, which establishes legal standards criminalising bribery, has six Latin American signatory countries – Argentina, Brazil, Chile, Colombia, Costa Rica and Mexico (OECD, 2017e). Following recent high-profile corruption scandals, which have had an impact on a number of governments across the region, as well as legal obligations under the OECD Convention, a number of LAC countries have undertaken further legislative reforms. For example, Argentina's new 2017 Law on Corporate Criminal Liability expands corporate liability to include national and transnational bribery activity. It goes even further, creating potential successor liability in mergers and acquisition transactions (Goldaracena and Caniza, 2018). Companies recommended that countries continue emphasising this type of effort and work with entities such as the OECD to ensure alignment with best practices. Also in alignment with these recommendations, the OECD launched the *Integrity for Good Governance in Latin America and the Caribbean Action Plan* in Lima, Peru,

in 2018. The plan seeks to provide guidance on the introduction of specific policy actions to enhance anti-corruption and integrity frameworks for public governance across the region (OECD, 2018i).

## **Addressing evolving labour market requirements will be key in enhancing business productivity**

### **Despite opportunities for improvement, labour market inefficiencies weigh down on business growth**

Labour markets in Latin America continue to suffer from significant inefficiencies with regard to skills and qualifications. While over half of firms struggle to find adequately skilled workers, the region has the highest skills shortage in the formal economy (Melguizo and Pages-Serra, 2017). The region also suffers from occupational mismatch. A study by the International Labour Organisation of youth in the LAC region found that for 36% of surveyed young workers their studies did not apply to their line of work. Moreover, 39% said that their jobs demanded fewer years of study than they had completed (ILO, 2017b).

Labour market failures have been found to negatively affect businesses due to lower labour productivity and less efficient allocation of resources (Adalet McGowan and Andrews, 2015). Furthermore, a more skilled workforce is linked to higher market value (Abowd et al., 2005). To this effect, businesses pointed to the prevalence of these labour market inefficiencies as both a cause of social and developmental challenges and a barrier to business growth.

At the same time, participants evoked Latin America's particular demographic advantage: a relatively young population. Indeed, one-quarter of the Latin American population is aged between 15 and 29 (OECD/CAF/ECLAC, 2016). Most countries in the region benefit from this demographic dividend today, which offers LAC governments the possibility of achieving development and firm productivity gains (OECD/CAF/ECLAC, 2016). However, many of these young individuals are confronted with a lack of labour market opportunities, as companies cannot offer jobs that match their needs (Herranz, 2016).

As the demographic window of opportunity is closing, with decreasing fertility rates and rising life expectancy, it is ever more important for LAC governments that they address inefficiencies in their labour markets. Participants stressed that, by doing so, a significant step will be taken towards rebuilding trust in institutions among both citizens and firms.

### **Adapting policy to the region's evolving labour market dynamics**

The needs of the region's population are changing, in terms of labour market outcomes. New forms of work are emerging on a global scale with, increasingly, more workers engaged in temporary, part-time, own-account or triangular employment<sup>8</sup> (ILO, 2017b). An International Labour Organisation survey of Latin American youth found that 69% of respondents would prefer to work in their own companies in the future, while 40% expect to work from home and 59% anticipate flexible work schedules (ILO, 2017b). These perspectives on future employment contrast strongly with the current labour market situation. Indeed, only 10% of youth surveyed currently work in their own enterprise, while fewer than 30% work flexible hours and fewer than 20% work from home (ILO, 2017b).

Firms operating in the region that will be able to provide workers with better-adapted contracts can take advantage of these emerging preferences to benefit their activities. Offering more flexible solutions can help businesses attract and retain talent (ManpowerGroup, 2017). A ManpowerGroup survey of 14 000 global candidates aged 18 to 65 found that 38% of respondents place schedule flexibility among the top three factors they consider when making career decisions, a 20-30% increase since 2016. This figure is even higher in LAC countries such as Colombia (39%), Peru (41%), Costa Rica (45%) and Argentina (45%) (ManpowerGroup, 2017). Flexibility also allows firms to adapt to fluctuations in the business cycle and withstand economic shocks (ILO, 2016).

Labour market policies and regulations have a strong role to play in this regard, not only in supporting flexibility for businesses and workers but also in ensuring that non-standard jobs are of better quality and are better able to meet expectations. Labour market reforms in LAC countries explain in part the heterogeneity of the evolution of temporary and part-time work across the region (ILO, 2016). Argentina, for instance, has a relatively low incidence of temporary employment, due in part to more rigid labour market regulations (ILO, 2016). Research points to high termination costs, complex procedures for collective dismissals and restrictions on the use of temporary contracts as impeding the good functioning of the Argentinian labour market (OECD, 2017f). Participants noted in particular that labour market reforms should provide firms with the flexibility they need to properly recruit human capital, while ensuring that the quality of temporary and part-time jobs is preserved. This can prove to be an effective tool for fighting informality in Latin America, as more flexible employment can provide a stepping-stone for youth to enter the labour market (OECD, 2014c).

During the EMnet meeting *Public-private collaboration towards institutional openness* in Guatemala, businesses highlighted in particular the role that multinational companies can play in addressing the informality challenge. This included how, under their obligations to comply with international standards on anti-corruption, a number of multinationals work closely throughout their supply chains in the region, including through small and medium-sized producers, to ensure that formal processes are in place to guarantee compliance. This creates an incentive that drives local suppliers towards formality in order to be better able to integrate their products into these value chains and facilitate access to markets.

### **Rethinking education systems to close the skills gap**

Companies affirmed that a key lever in unlocking firm productivity and preparing future generations of workers for the fast-changing world lies in skills development. Education systems were discussed as a fundamental area needing improvement in Latin America. In order to provide Latin Americans with the skills that companies are looking for, businesses stressed the need to rethink education systems to provide more adequate training that better matches labour market requirements.

Demand for specific skills is shifting in Latin America. As technology advances, the nature of jobs will be transformed (ManpowerGroup, 2016). Although this provides LAC economies with potential growth engines, it also increases the complexity of skills required by today's labour markets (Melguizo and Perea, 2016). As such, skills related to creativity, cognitive ability and emotional intelligence would be in increasing demand (ManpowerGroup, 2016).

In order to build effective educational programmes, companies recommend revising traditional educational models by sponsoring more public-private co-operation. Collaboration between the private sector and educational institutions can help bridge the gaps that separate students and the unemployed from acquiring the skills they need to access labour markets (WEF, 2015). Vocational education and training (VET) programmes can provide a solid framework to help students gain the skills currently sought by employers but can also better adapt training programmes to future labour market requirements. Companies acknowledged that VET programmes and on-the-job experience are still lacking across the region. In countries such as Chile and Ecuador, for instance, fewer than half of secondary students do internships (UNESCO, 2016). Increased public-private collaboration, with flexible roles and responsibilities, will be a necessary step to allow educational and vocational training systems to adapt to changing demands for skills (OECD/CAF/ECLAC, 2018). An example of this is the Cibertec Institute in Peru, which offers technical-vocational training to more than 14 000 students in collaboration with companies such as Cisco Systems, Microsoft or Oracle, to ensure that its students obtain marketable skills (IFC, n.d.)

At the same time, companies across the region, along with other stakeholders, are increasingly contributing to enhancing the skills of the workforce. Companies emphasised that with first-hand knowledge of the skills required by employers, the private sector can offer education solutions to the region's workforce that are better adapted to labour market requirements. IBM, for instance, through its IBM Skills Gateway offers online as well as in-person training courses specifically designed to develop the skills that businesses need.<sup>9</sup> Furthermore, the P-TECH programme, which the company has also pioneered, offers an example of a collaborative model, where a partnership is established between high schools, community colleges and local business partners to provide STEM (science, technology, engineering and mathematics) training to underserved youth. The goal is to facilitate the obtaining of high school diplomas, free associate's degrees and first-in-line job interview opportunities based on the skill requirements of the various industry partners (IBM Corporation, 2018). Similarly, Google's Activate initiative provides free online and offline training in the digital skills space to unemployed individuals. The pilot initiative has trained 170 000 students and awarded 30 000 certifications worldwide and is present in several Latin American countries, such as Argentina, Chile, Colombia, the Dominican Republic and Ecuador. (WEF, n.d.).

## CONCLUSION

Latin America's economic prospects are improving after a few difficult years. However, the region's economic outlook remains below the global average, as Latin American countries continue to face a number of challenges related to low levels of productivity, investment and trust. At the same time, LAC countries are experiencing a number of political, social and demographic shifts that present both risks and opportunities.

LAC governments will play a pivotal role in addressing these issues. By spearheading a healthy business environment, institutions play a key role in introducing virtuous cycles of trust, investment and growth. This provides businesses with opportunities to grow, while consolidating partnerships and upholding the highest ethical and best practice standards. The private sector can also be a key player in efforts to address these issues. Through collaboration with the public sector, businesses can help respond to growing pressure from citizens for better public services and at the same time

contribute to building the necessary capacities and government stewardship to deliver basic public services.

Business representatives agreed that strong institutions and mutual trust are the pillars fundamental to the revival of investment. Addressing productivity issues will require efficient regulatory policies, a revision of labour markets and education systems. Macroeconomic instability, insecurity and market distortions all weigh heavily on investment decisions and will require a strong institutional response.

Providing companies with market opportunities and reducing barriers to the expansion of their activities should be at the centre of policy decision-making. Business and inclusive growth are not antithetical, and carefully designed and implemented policies can benefit Latin American economies significantly. Trade integration and promotion of PPPs are just two examples of measures that, if implemented correctly, can generate growth and investment opportunities.

Overall, participants stressed the need to sponsor more dialogue between the public and private sectors, emphasising that building confidence is a difficult process and requires time. Only through repeated and systematic consultation between both sectors, and successfully designed policies that take this dialogue into consideration, can the LAC region truly benefit from the improved global outlook and close the income gap.

## Notes

- <sup>1</sup> Members of the Pacific Alliance include: Chile, Colombia, Mexico and Peru. Mercosur members include Argentina, Brazil, Paraguay and Uruguay.
- <sup>2</sup> The International Labour Organization defines own-account workers as “workers who hold self-employment jobs and do not engage ‘employees’ on a continuous basis”. See ILO website: <http://www.ilo.org/global/statistics-and-databases/statistics-overview-and-topics/status-in-employment/current-guidelines/lang--en/index.htm>.
- <sup>3</sup> S&P cut Brazil’s credit rating to BB- (three notches below investment grade) in January 2018 as doubts grew about the government’s ability to close the fiscal deficit.
- <sup>4</sup> S&P downgraded Chile’s sovereign debt rating to A+ from AA- in July 2017 due to weak business confidence and low commodity prices, which led to reduced fiscal revenues.
- <sup>5</sup> Earmarked taxes are taxes whose revenues are reserved solely for a specific group or usage.
- <sup>6</sup> A value greater than 1 indicates that the sector over-contributes to tax revenue relative to the size of the sector in the economy.
- <sup>7</sup> See OECD “Business confidence index”: <https://data.oecd.org/leadind/business-confidence-index-bci.htm>.
- <sup>8</sup> Triangular employment refers to an employment relationship involving three actors: an employee, an agency and a client (employer).
- <sup>9</sup> See IBM Skills Gateway webpage: <https://www-03.ibm.com/services/learning/ites.wss/zz-en?pageType=page&c=a0011023>.

## References

- Abowd, J.M. et al. (2005), “The relation among human capital, productivity, and market value: Building up from micro evidence”, in *Measuring Capital in the New Economy*, University of Chicago Press, Chicago, [www.nber.org/chapters/c10621](http://www.nber.org/chapters/c10621).
- Adalet McGowan, M. and D. Andrews (2015), “Labour Market Mismatch and Labour Productivity: Evidence from PIAAC Data”, *OECD Economics Department Working Papers*, No. 1209, OECD Publishing, Paris, <https://doi.org/10.1787/5js1pzx1r2kb-en>.
- AKE (2017), *Special Report: Public-Private Partnerships (PPPs) in Latin America*, AKE, London, <https://akegroup.com/wp-content/uploads/2017/09/AKE-Special-Report-PPPs-in-Latin-America.pdf>.
- Astesiano, G. (9 May 2017), “A portrait of PPPs in Latin America”, World Bank Group Infrastructure & Public-Private Partnerships Blog, <http://blogs.worldbank.org/ppps/portrait-ppps-latin-america> (accessed 21 June 2018).
- Bayar, Y. (2016), “Public governance and economic growth in the transitional economies of the European Union”, *Transylvanian Review of Administrative Sciences*, Vol. 12/48, Directory of Open Access Journals, Lund, <http://rtsa.ro/tras/index.php/tras/article/download/480/469>.
- Cadestin, C., J. Gourdon and P. Kowalski (2016), “Participation in global value chains in Latin America: Implications for trade and trade-related policy”, *OECD Trade Policy Papers*, No. 192, OECD Publishing, Paris, <https://doi.org/10.1787/5jlpq80ts8f2-en>.
- Ciżkowicz, P. and A. Rzońca (2013), “Does inflation harm corporate investment? Empirical evidence from OECD countries”, *Economics: The Open-Access, Open-Assessment E-Journal*, Vol. 7/2013-16, pp. 1-38, <http://dx.doi.org/10.5018/economics-ejournal.ja.2013-16>.
- Dumitru, A. (2017), “Latin America: the times, they are changing”, *Rabobank Economic Report*, <https://economics.rabobank.com/publications/2017/october/latin-america-the-times-they-are-changing/#3ff9cafd-665a-4401-8ab2-75bf41e3716e>.
- ECLAC (2018), *Fiscal Panorama of Latin America and the Caribbean 2018*, United Nations, Santiago, [https://repositorio.cepal.org/bitstream/handle/11362/43406/1/S1800081\\_en.pdf](https://repositorio.cepal.org/bitstream/handle/11362/43406/1/S1800081_en.pdf).
- ECLAC (2017a), *Foreign Direct Investment in Latin America and the Caribbean 2017*, United Nations, Santiago, <https://www.cepal.org/en/publications/type/foreign-direct-investment-latin-america-and-caribbean>.

- ECLAC (2017b), *Economic Survey of Latin America and the Caribbean 2017: Dynamics of the Current Economic Cycle and Policy Challenges for Boosting Investment and Growth*, United Nations, Santiago, <https://www.cepal.org/en/publications/42002-economic-survey-latin-america-and-caribbean-2017-dynamics-current-economic-cycle>.
- ECLAC (2014), "The Pacific Alliance and MERCOSUR represent more than 80% of regional foreign trade", ECLAC press release, 24 November, <https://www.cepal.org/en/comunicados/alianza-del-pacifico-y-mercosur-representan-mas-de-80-del-comercio-exterior-regional> (accessed 10 July 2018).
- El Peruano (2017), "Decreto Legislativo N° 1353", El Peruano website <https://busquedas.elperuano.pe/normaslegales/decreto-legislativo-que-crea-la-autoridad-nacional-de-transp-decreto-legislativo-n-1353-1471551-5/> (accessed 5 July 2018).
- Etoniru, N. (2015), "What is the Pacific Alliance?", 12 July, Americas Society/Council of the Americas website, <https://www.as-coa.org/articles/explainer-what-pacific-alliance> (accessed 12 July 2018).
- Euromonitor International (2014), *From the Bottom of the Pyramid to the Emerging Middle Classes in Latin America*, <http://go.euromonitor.com/bottom-pyramid-emerging-middle-classes-latin-america.html>.
- EPRS (2016), "Latin America's informal economy: Some formalisation strategies", [http://www.europarl.europa.eu/RegData/etudes/BRIE/2016/589783/EPRS\\_BRI\(2016\)589783\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/BRIE/2016/589783/EPRS_BRI(2016)589783_EN.pdf).
- EY (2017a), *Strategically Managing Indirect Taxes in Latin America*, Ernst and Young Global Limited, [http://www.ey.com/Publication/vwLUAssets/EY-strategically-managing-indirect-taxes-in-latin-america/\\$FILE/EY-strategically-managing-indirect-taxes-in-latin-america.pdf](http://www.ey.com/Publication/vwLUAssets/EY-strategically-managing-indirect-taxes-in-latin-america/$FILE/EY-strategically-managing-indirect-taxes-in-latin-america.pdf).
- EY (2017b), *Pacific Alliance Business and Investment Guide 2017/2018*, Ernst and Young Global Limited, Lima, <https://www.ey.com/Publication/vwLUAssets/EY-pacific-alliance-business-and-investment-guide-2017-2018/%24File/EY-pacific-alliance-business-and-investment-guide-2017-2018.pdf>.
- Fundación MAPFRE (2018), *2018 Economic and Industry Outlook: Fourth Quarter Perspectives*, MAPFRE Economic Research, Madrid, [https://www.fundacionmapfre.org/documentacion/publico/i18n/catalogo\\_imagenes/grupo.cmd?path=1099346](https://www.fundacionmapfre.org/documentacion/publico/i18n/catalogo_imagenes/grupo.cmd?path=1099346).
- Gallup (2017), World Poll, <http://www.gallup.com/services/170945/world-poll.aspx>.
- Goldaracena, F. and V. Caniza (2018), "Argentina: New law on corporate criminal liability approved", Global Compliance News website, 12 March, <https://globalcompliancenews.com/argentina-corporate-criminal-liability-20180312/> (accessed 25 June 2018).
- GSMA (2014), *Common Position Proposal on Signal Inhibitors (Jammers) in Latin America*, GSM Association, <https://www.gsma.com/latinamerica/common-position-proposal-on-signal-inhibitors-jammers-in-latin-america>.
- GSMA/Deloitte (2017), *Digital Inclusion and Mobile Sector Taxation in El Salvador*, Deloitte, London, [https://www.gsma.com/publicpolicy/wp-content/uploads/2017/05/GSMA-El-Salvador-English\\_WEB.pdf](https://www.gsma.com/publicpolicy/wp-content/uploads/2017/05/GSMA-El-Salvador-English_WEB.pdf).
- Herbert Smith Freehills (2016), "Argentina passes a public-private partnership law", Herbert Smith Freehills, Legal Briefing, 22 December, <https://www.herbertsmithfreehills.com/latest-thinking/argentina-passes-a-public-private-partnership-law> (accessed 21 June 2018).
- Herranz, D. (2016), "Youth unemployment is a huge problem for Latin America. Here's how to solve it", World Economic Forum website, 13 June, <https://www.weforum.org/agenda/2016/06/youth-unemployment-is-a-huge-problem-for-latin-america-here-s-how-to-solve-it> (accessed 26 June 2018).
- IBM Corporation (2018), *Addressing the Skills Challenge with P-TECH Schools*, IBM Institute for Business Value, Armonk, ExpertInsights@IBV report, <https://www-935.ibm.com/services/us/gbs/thoughtleadership/ptechschoools/> (accessed 9 August 2018).
- IDB (2018a), *2018 Latin America and Caribbean Macroeconomic Report: A Mandate to Grow*, Inter-American Development Bank, Washington, DC, <https://publications.iadb.org/bitstream/handle/11319/8805/2018-Latin-American-and-Caribbean-Macroeconomic-Report-A-Mandate-to-Grow.pdf?sequence=1&isAllowed=y>.
- IDB (2018b), *Public-Private Partnerships to Promote Transparency*, Inter-American Development Bank, Washington, DC, <https://publications.iadb.org/handle/11319/8841%3Flocale-attribute%3Den%26locale-attribute%3Des%26locale-attribute%3Dpt%26+&cd=1&hl=fr&ct=clnk&gl=fr>.

- IDB (2017a), *Learning Better: Public Policy for Skills Development*, Inter-American Development Bank, Washington, DC, <https://publications.iadb.org/handle/11319/8495>.
- IDB (2017b), *The Costs of Crime and Violence: New Evidence and Insights in Latin America and the Caribbean*, Inter-American Development Bank, Washington, DC, <https://publications.iadb.org/bitstream/handle/11319/8133/The-Costs-of-Crime-and-Violence-New-Evidence-and-Insights-in-Latin-America-and-the-Caribbean.pdf>.
- IDB (2013), *Financing Public Security: Tax and Non-Tax Instruments to Finance Citizen Security and Crime Prevention*, Inter-American Development Bank Policy Brief, <https://publications.iadb.org/bitstream/handle/11319/1477/IFD-ICS%20Policy%20Brief%20Financing%20Public%20Security.pdf?sequence=1>.
- IFC (n.d.), "Bridging the education gap in Latin America", International Finance Corporation website, [https://www.ifc.org/wps/wcm/connect/news\\_ext\\_content/ifc\\_external\\_corporate\\_site/news+and+events/news/bridging+the+education+gap+in+latin+america](https://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/news/bridging+the+education+gap+in+latin+america) (accessed 3 July 2018).
- ILO (2017a), *Labour Overview 2017: Latin America and the Caribbean*, International Labour Organization Regional Office for Latin America and the Caribbean, Lima, [http://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/documents/publication/wcms\\_618120.pdf](http://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/documents/publication/wcms_618120.pdf).
- ILO (2017b), *The Future of Work We Want: The Voice of Youth and Different Perspectives from Latin America and the Caribbean*, International Labour Organization Regional Office for Latin America and the Caribbean, Lima, [http://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/documents/publication/wcms\\_567273.pdf](http://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/documents/publication/wcms_567273.pdf).
- ILO (2016), *Non-standard Employment around the World: Understanding Challenges, Shaping Prospects*, International Labour Organization, Geneva, [http://www.ilo.org/global/publications/books/WCMS\\_534326/lang--en/index.htm](http://www.ilo.org/global/publications/books/WCMS_534326/lang--en/index.htm).
- IMF (2018), *World Economic Outlook*, International Monetary Fund, Washington, D.C., <https://www.imf.org/en/Publications/WEO/Issues/2018/03/20/world-economic-outlook-april-2018>.
- IMF (2017a), "World Economic Outlook Database, April 2017", *World Economic Outlook Statistics* (database), International Monetary Fund, Washington, DC, <http://www.imf.org/external/pubs/ft/weo/2017/01/weodata/WEOApr2017all.xls>.
- IMF (2017b), *Panama: Selected Issues*, International Monetary Fund, Washington, DC, <https://www.imf.org/external/pubs/ft/scr/2013/cr1389.pdf>.
- IMF (2017c), *Trade Developments in Latin America and the Caribbean*, International Monetary Fund, Washington, DC, <https://www.imf.org/~media/Files/Publications/CR/2017/cr1766-ap-5.ashx>.
- IMF (2017d), *Cluster report – Trade integration in Latin America and the Caribbean*, International Monetary Fund, Washington, DC, <https://www.imf.org/~media/Files/Publications/CR/2017/cr1766.ashx>.
- IMF (2016a), *Regional Economic Outlook - Western Hemisphere: Managing Transitions and Risks*, International Monetary Fund, Washington, DC, <http://www.imf.org/en/Publications/REOWH/Issues/2017/01/07/Regional-Economic-Outlook-Western-Hemisphere12>.
- IMF (2016b), *Corruption: Costs and mitigation strategies*, IMF staff discussion note, International Monetary Fund, Washington, DC, <https://www.imf.org/external/pubs/ft/sdn/2016/sdn1605.pdf>.
- IMF/World Bank (2001), *Macroeconomic Policy and Poverty Reduction*, International Monetary Fund, Washington, DC, <https://www.imf.org/external/pubs/ft/exrp/macropol/eng/>.
- Indicators of Regulatory Policy and Governance* (iREG) for Latin America 2016; *Indicators of Regulatory Policy and Governance* (iREG) 2015. <http://dx.doi.org/10.1787/888933650874>.
- Keller, M. (2016), "Explainer: What is Mercosur?", 6 December, Americas Society/Council of the Americas website, <http://www.as-coa.org/articles/explainer-what-mercosur-0> (accessed 12 July 2018).
- Krolicki, K. and N. Bose (2017), "Wal-mart seeks anti-corruption certification, in talks with regulators", Reuters website, 4 May, <https://www.reuters.com/article/us-usa-compliance-walmart/wal-mart-seeks-anti-corruption-certification-in-talks-with-regulators-idUSKBN17Z2PM> (accessed 26 June 2018).
- Latinobarómetro (2016), "Latinobarómetro Database", <http://www.latinobarometro.org/latOnline.jsp>.
- Latinobarómetro (2015), "Latinobarómetro Database", <http://www.latinobarometro.org/latContents.jsp>
- ManpowerGroup (2017), *Work, for Me: Understanding Candidate Demand for Flexibility*, ManpowerGroup Solutions,

- [https://www.manpowergroupsolutions.com/wps/wcm/connect/976d951f-5303-41d4-be36-4938169d2d80/ManpowerGroup\\_Solutions-Work\\_for\\_Me.pdf?MOD=AJPERES](https://www.manpowergroupsolutions.com/wps/wcm/connect/976d951f-5303-41d4-be36-4938169d2d80/ManpowerGroup_Solutions-Work_for_Me.pdf?MOD=AJPERES).
- ManpowerGroup (2016), *The Skills Revolution: Digitization and Why Skills and Talent Matter*, ManpowerGroup, [https://www.manpowergroup.com/wps/wcm/connect/5943478f-69d4-4512-83d8-36bfa6308f1b/MG\\_Skills\\_Revolution\\_lores.pdf?MOD=AJPERES&CACHEID=5943478f-69d4-4512-83d8-36bfa6308f1b](https://www.manpowergroup.com/wps/wcm/connect/5943478f-69d4-4512-83d8-36bfa6308f1b/MG_Skills_Revolution_lores.pdf?MOD=AJPERES&CACHEID=5943478f-69d4-4512-83d8-36bfa6308f1b).
- ManpowerGroup (2015), *2015 Talent Shortage Survey*, ManpowerGroup, [https://www.manpowergroup.com/wps/wcm/connect/db23c560-08b6-485f-9bf6-f5f38a43c76a/2015\\_Talent\\_Shortage\\_Survey\\_US-lo\\_res.pdf?MOD=AJPERES](https://www.manpowergroup.com/wps/wcm/connect/db23c560-08b6-485f-9bf6-f5f38a43c76a/2015_Talent_Shortage_Survey_US-lo_res.pdf?MOD=AJPERES).
- Marsh & McLennan Companies/WEF (2017), *Global Risks of Concern to Business: WEF Executive Opinion Survey Results*, Marsh & McLennan Companies, <http://www.mmc.com/content/dam/mmc-web/Global-Risk-Center/Files/executive-opinion-survey-2017-selected-results.pdf>.
- Martinez, A.R. and J. Gilbert (2018), "Argentine central bank holds key interest rate at 40 percent", 8 May, <https://www.bloomberg.com/news/articles/2018-05-08/argentine-central-bank-holds-key-interest-rate-at-40-percent> (accessed 13 June 2018).
- Melguizo, A. and C. Pages-Serra (2017), "In Latin America, companies still can't find the skilled workers they need", World Economic Forum website, 30 March, <https://www.weforum.org/agenda/2017/03/in-latin-america-companies-still-can-t-find-the-skilled-workers-they-need/> (accessed 26 June 2018).
- Melguizo, Á. and J. Perea (2016), "Mind the skills gap! Regional and industry patterns in emerging economies", *OECD Development Centre Working Papers*, No. 329, OECD Publishing, Paris, <https://doi.org/10.1787/5jm5hkp7v145-en> (accessed 3 July 2018).
- Moody's Investors Service (2018), *Moody's: Latin America sovereigns will see deterioration in fiscal profiles through 2019*, Moody's Investors Service, [https://www.moody's.com/research/Moodys-Latin-American-sovereigns-will-see-deterioration-in-fiscal-profiles--PR\\_378417?WT.mc\\_id=AM-RmluYW56ZW4ubmV0X1JTQl9SYXRpbmdzX05ld3NfTm9fVHJhbnNsYXRpb25z-20180124\\_PR\\_378417](https://www.moody's.com/research/Moodys-Latin-American-sovereigns-will-see-deterioration-in-fiscal-profiles--PR_378417?WT.mc_id=AM-RmluYW56ZW4ubmV0X1JTQl9SYXRpbmdzX05ld3NfTm9fVHJhbnNsYXRpb25z-20180124_PR_378417).
- Muggah, R. and Tobón, K. (2018), *Citizen Security in Latin America: Facts and Figures*, Igarapé Institute, Rio de Janeiro, <https://igarape.org.br/wp-content/uploads/2018/04/Citizen-Security-in-Latin-America-Facts-and-Figures.pdf>.
- Nielsen (2017), "Pockets of Growth: Latin America", webpage, <https://www.nielsen.com/us/en/insights/reports/2017/pockets-of-growth-latin-america.html> (accessed 25 June 2018).
- OECD (2018a), *Economic Outlook for Southeast Asia, China and India 2018: Fostering Growth through Digitalisation*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264286184-en>.
- OECD (2018b), calculations based on World Bank Database, *GDP per person employed*, <https://data.worldbank.org/indicator/SL.GDP.PCAP.EM.KD?view=chart>.
- OECD (2018c), calculations based on World Justice Project data.
- OECD (2018d), *Skills in Ibero-America: Insights from PISA 2015*, OECD Publishing, Paris, <http://www.oecd.org/pisa/sitedocument/Skills-in-Ibero-America-Insights-from-PISA-2015.pdf>.
- OECD (2018e), "Putting faces to the jobs at risk of automation", *Policy Brief on the Future of Work*, OECD Publishing, Paris, <http://www.oecd.org/employment/future-of-work/Automation-policy-brief-2018.pdf>.
- OECD (2018f), *OECD Economic Surveys: Brazil 2018*, OECD Publishing, Paris, [http://dx.doi.org/10.1787/eco\\_surveys-bra-2018-en](http://dx.doi.org/10.1787/eco_surveys-bra-2018-en).
- OECD (2018g), "Further reforms to spur trade and investment key for Brazil's inclusive growth", press release, 28 February, <http://www.oecd.org/economy/further-reforms-to-spur-trade-and-investment-key-for-brazil-s-inclusive-growth.htm> (accessed 5 July 2018).
- OECD (2018h), *Tax Challenges Arising from Digitalisation – Interim Report 2018: Inclusive Framework on BEPS*, OECD/G20 Base Erosion and Profit Shifting Project, OECD Publishing, Paris,

<http://dx.doi.org/10.1787/9789264293083-en>.

- OECD (2018i), *Integrity for Good Governance in Latin America and the Caribbean: From Commitments to Action*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264201866-en>.
- OECD (2017a), *Government at a Glance 2017*, OECD Publishing, Paris, [https://doi.org/10.1787/gov\\_glance-2017-en](https://doi.org/10.1787/gov_glance-2017-en).
- OECD (2017b), *OECD Economic Surveys: Mexico 2017*, OECD Publishing, Paris, [http://dx.doi.org/10.1787/eco\\_surveys-mex-2017-en](http://dx.doi.org/10.1787/eco_surveys-mex-2017-en).
- OECD (2017c), *Trust and Public Policy: How Better Governance Can Help Rebuild Public Trust*, OECD Public Governance Reviews, OECD Publishing, Paris, <https://doi.org/10.1787/9789264268920-en>.
- OECD (2017d), "Business Insights on Emerging Markets 2017", OECD Development Centre, Paris, <http://www.oecd.org/dev/oecdemnet.htm>.
- OECD (2017e), "OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions: Ratification Status as of May 2017", <http://www.oecd.org/daf/anti-bribery/WGBRatificationStatus.pdf>.
- OECD (2017f), *OECD Economic Surveys: Argentina 2017: Multi-dimensional Economic Survey*, OECD Publishing, Paris, [https://doi.org/10.1787/eco\\_surveys-arg-2017-en](https://doi.org/10.1787/eco_surveys-arg-2017-en).
- OECD (2016a), *The Productivity-Inclusiveness Nexus: Preliminary Version*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264258303-en>.
- OECD (2016b), *Promoting Productivity for Inclusive Growth in Latin America*, OECD Publishing, Paris, <https://doi.org/10.1787/23081392>.
- OECD (2016c), "Disruptive innovation in Latin America and the Caribbean: Competition enforcement challenges and advocacy opportunities", Background paper by the OECD Secretariat, <http://oecdinsights.org/wp-content/uploads/2016/04/Background-Paper-for-Disruptive-Innovations-in-Latin-America-and-the-Caribbean.pdf>.
- OECD (2016d), *Economic Surveys: Costa Rica 2016: Economic Assessment*, OECD Publishing, Paris, [http://dx.doi.org/10.1787/eco\\_surveys-cri-2016-en](http://dx.doi.org/10.1787/eco_surveys-cri-2016-en).
- OECD (2015a), *OECD Business and Finance Outlook 2015*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264234291-en>.
- OECD (2015b), *Competition and Market Studies in Latin America: The Case of Chile, Colombia, Costa Rica, Mexico, Panama and Peru*, OECD Publishing, Paris, <http://www.oecd.org/daf/competition/competition-and-market-studies-in-latin-america2015.pdf>.
- OECD (2014a), "The rationale for fighting corruption", Background brief, CleanGovBiz Initiative, OECD, Paris, <https://www.oecd.org/cleangovbiz/49693613.pdf>.
- OECD (2014b), *Market Openness Review of Colombia*, Background report by the OECD Secretariat, [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=TAD/TC\(2014\)4&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=TAD/TC(2014)4&docLanguage=En).
- OECD (2014c), *Employment Outlook 2014*, OECD Publishing, Paris, [https://doi.org/10.1787/empl\\_outlook-2014-en](https://doi.org/10.1787/empl_outlook-2014-en).
- OECD (2012), *Recommendation of the Council on Principles for Public Governance of Public-Private Partnerships*, OECD, Paris, <http://www.oecd.org/governance/oecd-recommendation-public-privatepartnerships.htm>.
- OECD (2006), *Policy Framework for Investment: A Review of Good Practices*, OECD Publishing, Paris, <http://www.oecd.org/daf/inv/investmentfordevelopment/policyframeworkforinvestmentareviewofgoodpractices.htm>.
- OECD (n.d.), "Regional Tax Programme for Central and Latin America", <http://www.oecd.org/ctp/regionaltaxprogrammeforcentralandlatinamerica.htm> (accessed 15 January 2019).
- OECD/IDB (2016), *Boosting Productivity and Inclusive Growth in Latin America*, OECD Publishing, Paris, [http://www.oecd.org/latin-america/Boosting\\_Productivity\\_Inclusive\\_Growth.pdf](http://www.oecd.org/latin-america/Boosting_Productivity_Inclusive_Growth.pdf).
- OECD/CAF/ECLAC (2018), *Latin American Economic Outlook 2018: Rethinking Institutions for Development*, OECD Publishing, Paris, <https://doi.org/10.1787/leo-2018-en>.
- OECD/CAF/ECLAC (2016), *Latin American Economic Outlook 2017: Youth, Skills and Entrepreneurship*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/leo-2017-en>.
- OECD/CIAT/IDB (2016), *Taxing Wages in Latin America and the Caribbean 2016*, OECD Publishing, Paris,

<http://dx.doi.org/10.1787/9789264262607-en>.

- OECD et al. (2018), *Revenue Statistics in Latin America and the Caribbean 2018*, OECD Publishing, Paris, [https://doi.org/10.1787/rev\\_lat\\_car-2018-en-fr](https://doi.org/10.1787/rev_lat_car-2018-en-fr).
- Pindyck, R.S. and A. Solimano (1993), "Economic instability and aggregate investment", *Policy Research Working Papers*, No. WPS 1148, World Bank, Washington, DC, <http://documents.worldbank.org/curated/en/112581468739244139/Economic-instability-and-aggregate-investment>.
- Price, J. (2016), "More than 200 million people now in LATAM's middle class", 10 November, <https://americasmi.com/insights/latams-middle-class-is-200m-strong/> (accessed 13 June 2018). Porter, M.E. (1990), "The competitive advantage of nations," *Harvard Business Review*, <http://hbr.org/1990/03/the-competitive-advantage-of-nations/ar/1>.
- PwC/UCSF (2015), *Lessons from Latin America: The early landscape of healthcare public-private partnerships*, <https://www.pwc.com/gx/en/healthcare/pdf/healthcare-public-private-partnerships-latin-america.pdf>.
- Querbach, T. and C. Arndt (2017), "Regulatory policy in Latin America: An analysis of the state of play", *OECD Regulatory Policy Working Papers*, No. 7, OECD Publishing, Paris, <https://doi.org/10.1787/2cb29d8c-en>.
- Rapoza, K. (2018), "Argentina's central bank's credibility 'damaged' in crazy rate moves", Forbes website, 4 May, <https://www.forbes.com/sites/kenrapoza/2018/05/04/brakes-slammng-on-argentina-as-central-banks-credibility-damaged/#6152e74910d5> (accessed 13 June 2018).
- Reuters (2018), "S&P cuts Brazil credit rating as pension reform doubts grow", Reuters website, 12 January, <https://www.reuters.com/article/brazil-sovereign-downgrade/sp-cuts-brazil-credit-rating-as-pension-reform-doubts-grow-idUSL1N1P628Y> (accessed 20 June 2018).
- Simanis, E. and D. Duke (2014), "Profits at the bottom of the pyramid", *Harvard Business Review*, <https://hbr.org/2014/10/profits-at-the-bottom-of-the-pyramid>.
- Slattery, G. (2017), "S&P downgrades Chile sovereign debt for first time in decades", Reuters website, 14 July, <https://www.reuters.com/article/chile-ratings/sp-downgrades-chile-sovereign-debt-for-first-time-in-decades-idUSL1N1K4278> (accessed 20 June 2018).
- The Economist (2017), "On NAFTA, America, Canada and Mexico are miles apart", *The Economist*, 21 October, <https://www.economist.com/news/finance-and-economics/21730420-american-demands-are-so-extreme-some-suspect-it-not-wanting-deal-all>.
- The Economist Intelligence Unit (2017), *Evaluating the Environment for Public-Private Partnerships in Latin America and the Caribbean: The 2017 Infrascope*, EIU, New York, <https://publications.iadb.org/handle/11319/8662>.
- Trading Economics (2018), "Argentinian Peso", *Trading Economics* (database), <https://tradingeconomics.com/argentina/currency> (accessed 13 June 2018).
- Transparency International (2017), *People and Corruption: Latin America and the Caribbean*, Transparency International, Berlin, [https://www.transparency.org/whatwedo/publication/global\\_corruption\\_barometer\\_people\\_and\\_corruption\\_latin\\_america\\_and\\_the\\_car](https://www.transparency.org/whatwedo/publication/global_corruption_barometer_people_and_corruption_latin_america_and_the_car).
- UNCTAD (2017a), *World Investment Report Database*, <https://unctad.org/en/Pages/DIAE/World%20Investment%20Report/Annex-Tables.aspx>.
- UNCTAD (2017b), *World Investment Report 2017*, United Nations, Geneva, <http://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=1782>.
- UNCTAD (2004), "Good governance in investment promotion", Note by the UNCTAD Secretariat, Geneva, [http://unctad.org/en/docs/c2em15d2\\_en.pdf](http://unctad.org/en/docs/c2em15d2_en.pdf).
- UNDP (2016), Informe Regional sobre Desarrollo Humano para América Latina y el Caribe: Progreso [Regional Human Development Report for Latin America and the Caribbean], [http://hdr.undp.org/sites/default/files/2016\\_human\\_development\\_report.pdf](http://hdr.undp.org/sites/default/files/2016_human_development_report.pdf).
- UNESCO (2016), *Technical and vocational education and training (TVET) in Latin America and the Caribbean: A regional approach towards 2030*, UNESCO Regional Bureau for Education in Latin America and the Caribbean,

- Santiago, <http://www.unesco.org/new/fileadmin/MULTIMEDIA/FIELD/Santiago/pdf/Technical-and-Vocational-Education-in-Latin-America-and-.pdf>.
- USAID/LAPOP (2017), *The Political Culture of Democracy in the Americas, 2016/17: A Comparative Study of Democracy and Governance*, Latin American Public Opinion Project, Nashville, [https://www.vanderbilt.edu/lapop/ab2016/AB2016-17\\_Comparative\\_Report\\_English\\_V2\\_FINAL\\_090117\\_W.pdf](https://www.vanderbilt.edu/lapop/ab2016/AB2016-17_Comparative_Report_English_V2_FINAL_090117_W.pdf).
- WEF (2018a), *The Global Competitiveness Report 2017–2018*, World Economic Forum, Geneva, <http://reports.weforum.org/global-competitiveness-index-2017-2018/>.
- WEF (2018b), “Partnering Against Corruption Initiative (PACI)”, Community Overview, World Economic Forum, Geneva, [http://www3.weforum.org/docs/WEF\\_PACI\\_Community\\_Overview\\_pager\\_2017.pdf](http://www3.weforum.org/docs/WEF_PACI_Community_Overview_pager_2017.pdf).
- WEF (2016), “Innovation is transforming Latin America. Can the region reap the rewards?”, World Economic Forum website, 14 June, <https://www.weforum.org/agenda/2016/06/innovation-is-transforming-latin-america-can-the-region-capitalise/>.
- WEF (2015), “3 ways the private sector is filling skills and training gaps”, World Economic Forum website, 19 June, <https://www.weforum.org/agenda/2015/06/3-ways-the-private-sector-is-filling-skills-and-training-gaps/> (accessed 3 July 2018).
- WEF (n.d.), “Activate: Submitted by Google”, World Economic Forum, In: *Disrupting Unemployment: Business-led Solutions for Action*, Google case study, <http://reports.weforum.org/disrupting-unemployment/activate-by-google/> (accessed 3 July 2018).
- World Bank (2018a), World Bank database, GDP Growth (annual %), <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=BR>.
- World Bank (2018b), *Doing Business 2018: Reforming to Create Jobs*, International Bank for Reconstruction and Development/The World Bank, Washington, DC, <http://www.doingbusiness.org/reports/global-reports/doing-business-2018>.
- World Bank (2018c), “Fiscal adjustment in Latin America and the Caribbean: Short-run pain, long-run gain?”, *LAC Semiannual Report (April)*, World Bank, Washington, DC, <https://openknowledge.worldbank.org/bitstream/handle/10986/29666/9781464812903.pdf>.
- World Bank (2018d), “PPP units around the world”, World Bank website, <https://ppp.worldbank.org/public-private-partnership/overview/international-ppp-units> (accessed 25 June 2018).
- World Bank (2017a), “Leaning against the wind: Fiscal policy in Latin America and the Caribbean in a historical perspective”, *LAC Semiannual Report (April)*, World Bank, Washington, DC, <https://openknowledge.worldbank.org/handle/10986/26364>.
- World Bank (2017b), “Between a rock and a hard place: The monetary policy dilemma in Latin America and the Caribbean”, *LAC Semiannual Report (October)*, World Bank, Washington, DC, <https://openknowledge.worldbank.org/bitstream/handle/10986/28443/9781464812170.pdf>.
- World Bank (2017c), *Private Financing of Public Infrastructure through PPPs in Latin America and the Caribbean*, World Bank, Washington, DC, <http://documents.worldbank.org/curated/en/632411492665324317/Main-report>.
- World Bank (2016), “Government objectives: Benefits and risks of PPPs”, World Bank website, <https://ppp.worldbank.org/public-private-partnership/overview/ppp-objectives> (accessed 25 June 2018).
- WITS (2018), “Latin America & Caribbean trade summary 2016 data”, World Integrated Trade Solution website, <https://wits.worldbank.org/CountryProfile/en/Country/LCN/Year/LTST/Summary> (accessed 25 June 2018).
- WTO (2018), “Argentina ratifies the Trade Facilitation Agreement”, World Trade Organization press release, 22 January, [https://www.wto.org/english/news\\_e/news18\\_e/fac\\_22jan18\\_e.htm](https://www.wto.org/english/news_e/news18_e/fac_22jan18_e.htm) (accessed 10 July 2018).
- WTO/OECD/UNCTAD (2017), *Report on G20 Trade and Investment Measures (mid-October 2016 to mid-May 2017)*, <http://www.oecd.org/daf/inv/investment-policy/17th-Report-on-G20-Trade-and-Investment-Measures.pdf>.
- Zovatto, D. (6 November 2017), “Latin America’s super election cycle is wide open”, The Brookings Institution blog, <https://www.brookings.edu/blog/order-from-chaos/2017/11/06/latin-americas-super-election-cycle-is-wide-open/>.

## 4. Infrastructure and regional connectivity in Africa

This chapter provides insights and policy recommendations from the private sector on how to unlock opportunities towards infrastructure development in Africa. The analysis builds on discussions which took place at the business meeting “Infrastructure and Regional Connectivity” organised by the OECD Development Centre’s Emerging Markets Network (EMnet) at the OECD headquarters in Paris on 30 October 2018, back-to-back with the International Economic Forum on Africa.

Key messages include:

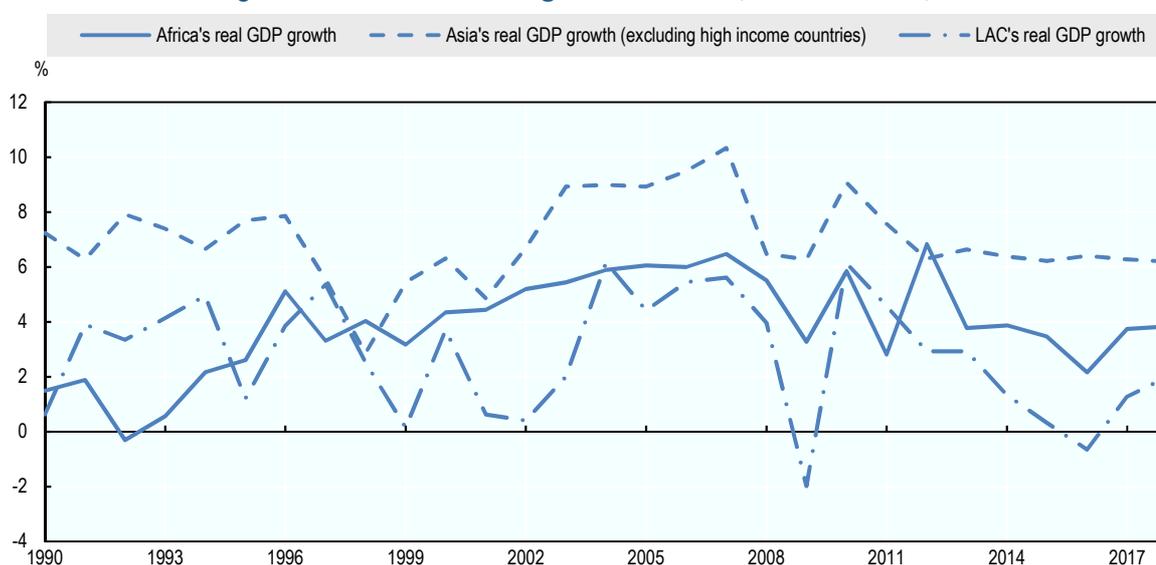
- Africa’s population growth, economic dynamism and rapid urbanisation can generate opportunities for businesses, provided that investments are made to enhance infrastructure and regional connectivity, in line with the Africa Union’s Agenda 2063.
- The Africa Continental Free Trade Area (CFTA) agreement is predicted to help intra-African trade grow by up to 52% while additional facilitation measures can further reduce the time and cost of trading.
- Better trade facilitation measures, such as efficient warehousing and customs procedures, are important to complement improved physical links.
- Over 600 million sub-Saharan Africans are predicted to remain without electricity access between now and 2030. Investment in green energy is necessary and should also include a focus on off-grid and small-scale energy solutions.
- Upgraded digital infrastructure and better e-government services can unlock Africa’s economic potential further, although more developed digital skills are necessary.
- Transparency and public governance are important elements to design successful infrastructure projects.
- Governments must strengthen domestic resource mobilisation while partnerships with public and private financial institutions can crowd in more investment.

## AFRICA'S ECONOMIC AND BUSINESS OVERVIEW

### Africa's economic growth continues, but volatility remains

Africa's real gross domestic product (GDP) is projected to grow at 3.9% for the period 2018-22, although volatility has increased (AUC/OECD, 2018). Figure 4.1 demonstrates the differences in real economic growth rates between Africa, Asia and Latin America and Caribbean (LAC). Between 2000 and 2008, Africa's economic growth rate was about 5.5% per year, significantly better than LAC, where growth stood at 3.6%, but lower than Emerging Asia's<sup>1</sup> average growth of 8.0% over the same period (IMF, 2018). Growth has been less stable since 2008. Initially, due to price shocks in commodities, net importer countries faced increases in oil and food prices. Then, the end of the commodity super-cycle has conversely affected net commodity exporters (AUC/OECD, 2018).

Figure 4.1. Real economic growth in Africa, Asia and LAC, 1990-2018



Source: AUC/OECD (2018), *Africa's Development Dynamics 2018: Growth, Jobs and Inequalities*, <https://doi.org/10.1787/9789264302501-en>.

Growth volatility varies widely across the continent. Although resource-rich countries have had stronger terms of trade and have recorded an economic growth rate of 6% per year since 2000, thanks to high commodity prices, a high concentration of export earnings has led to unstable government revenues. This has deterred long-term investment and social spending (AUC/OECD, 2018). Between 2012 and 2016, a sharp reduction in commodity prices decreased domestic revenues in resource-rich countries by 44%. Since then, there has been more stable growth in non-resource-rich countries, averaging 4% per year since 2000 (IMF, 2018).

### **Demographic growth creating “demographic dividends”**

Africa has the world’s fastest-growing population. With 1.26 billion people in 2018, it is expected to reach 1.7 billion by 2030 and 2.5 billion by 2050 (AfDB/OECD/UNDP, 2016). This implies that Africa’s share of the world population will reach 25% by 2050. The corresponding growth of the workforce could lead to “dividends” for African economies in two ways. Firstly, a rise in the working age population could boost economic growth by increasing the effective labour supply, improving the annual growth of GDP per capita by up to half a percentage point at constant output per worker. Secondly, a demographic dividend may arise from an increase in the activity ratio (i.e. increase in the proportion of the working age population aged 15-64 relative to the dependent-age population aged under 15 and over 65). This can lead to accumulating savings, investments in physical and human capital, and productivity gains (AUC/OECD, 2018). However, the extent to which demographic dividends materialise depends on the number and quality of jobs created in the economy and on the quality of education systems. Rapid population growth could also create high pressure on local environmental resources, if their consumption grows as rapidly as it has in more advanced economies (AfDB/OECD/UNDP, 2016).

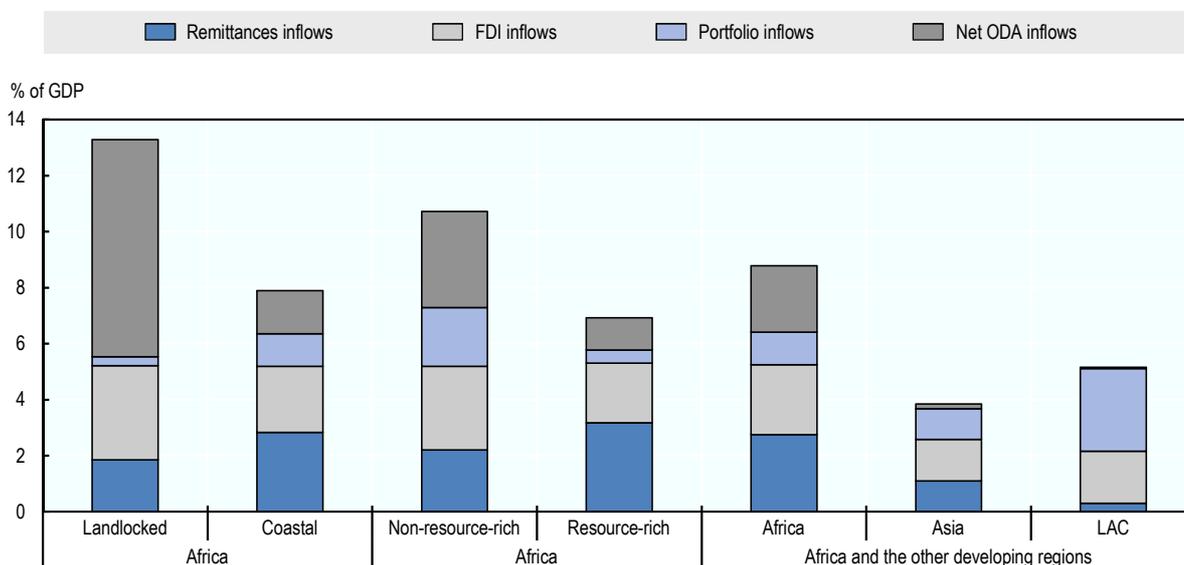
### **Rapid transition towards urbanisation**

Rapid urbanisation brings opportunities to create new markets and improve productivity. By 2035, half of the African population will reside in urban areas (UNDESA, 2018). Foreign direct investment (FDI) to top African urban markets is also increasing. An estimated 83% of all jobs directly created by FDI between 2003 and 2014 were located in cities (AfDB/OECD/UNDP, 2016). However, the potential of rapid urbanisation is constrained by low employment outside informal sectors, spatial urban expansion without the benefits of densely populated areas, and urban poverty. Tackling these issues requires continually upgrading urban infrastructure, strengthening rural-urban linkages and managing related social and environmental challenges (AUC/OECD, 2018).

### **Remittances, official development assistance and FDI flows affect African economies differently**

Africa has witnessed significant financial inflows over the last decade, and continues to prove itself as an attractive destination for FDI (AUC/OECD, 2018). Total financial inflows (remittances, FDI, portfolio inflows and net official development assistance (ODA) into Africa reached 8.8% of GDP between 2009 and 2016 (AUC/OECD, 2018). This is higher than the average for Asia (3.8%) and LAC (5.2%) (Figure 4.2). FDI inflows to Africa were forecasted to increase by 20% in 2018. Although Africa’s foreign trade is highly dependent on primary products, the 2018 African CFTA agreement can help build domestic capacity and support export diversification by strengthening intra-continental trade. The Economic Commission for Africa estimates that the removal of tariffs and non-tariff barriers among countries has the potential to boost intra-African trade by 52.3% by 2020 (UNCTAD, 2018a).

Figure 4.2. Total financial inflows as a percentage of GDP in Africa, Asia and LAC, 2009-16



Source: AUC/OECD (2018), *Africa's Development Dynamics 2018: Growth, Jobs and Inequalities*, <https://doi.org/10.1787/9789264302501-en>.

Between 2009 and 2016, financial inflows into Africa relied much more on remittances and ODA than they did in other continents, accounting for 2.8% and 2.4% of Africa's GDP respectively (AUC/OECD, 2018). Remittances largely went into household consumption rather than private investment. Several countries face a high dependence on remittance flows as a proportion of GDP, including Liberia (27%) and Lesotho (18%). Although ODA has helped to reduce poverty in many heavily indebted countries, it can also play a key role in de-risking investment in productive assets and encouraging small and medium-sized enterprises (SMEs) to comply with international standards (AUC/OECD, 2018).

#### African firms increasingly engage in Africa-to-Africa investment

FDI outflows from Africa increased by 8% to USD 12 billion in 2017. This reflects primarily a significant increase in outward FDI by South African (up 64% to USD 7.4 billion) and Moroccan firms (up 66% to USD 960 million) (UNCTAD, 2018b). Several other African multinationals have expanded their footprints within the region. Some notable examples include South African firms expanding into Namibia (e.g. Standard Bank) and strategic investments and partnerships made by Ethiopian Airlines to revive struggling African airlines across the continent (UNCTAD, 2018b).

#### The CFTA agreement can support regional integration

The CFTA agreement is expected to strengthen intra-African trade. Currently, intra-continental merchandise exports account for less than 19% of total trade, in comparison to 63% in Europe (EU-

28) and 58% in Emerging Asia (AUC/OECD, 2018). This low percentage is partly due to persisting high barriers to trade. For example, for capital, services and people, borders remain difficult to cross, and regulatory restrictions still hamper trade in services (AUC/OECD 2018). The state of hard infrastructure, such as roads, ports and transportation links, and soft infrastructure, such as warehousing and customs facilities, pose additional challenges (UNCTAD, 2014).

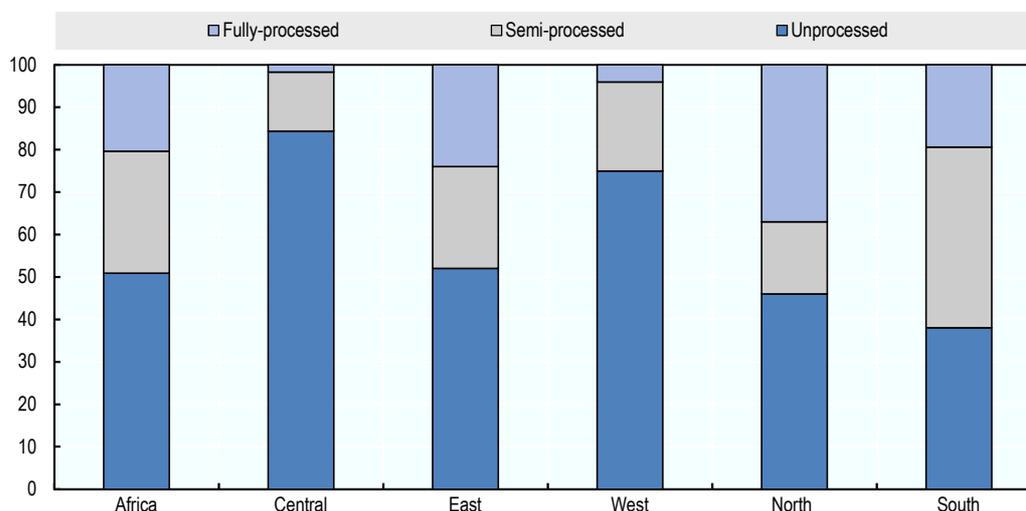
Forty-nine African countries have signed the CFTA agreement. This Free Trade Area will create a single market for trade in goods and services among the African countries (UNCTAD, 2018). The single market will be accompanied by co-operation on investment measures, intellectual property rights and competition policies, in order to support innovation, competitiveness, and trade diversification. It has been estimated that full liberalisation will lead to an expected 1-3% increase in GDP and a 33% increase in value of intra-African trade (UNCTAD, 2018c).

### Africa's foreign trade is still highly dependent on primary products

Between 2000 and 2016, Africa tripled its trade with the rest of the world, from USD 276 billion to USD 806 billion, primarily through an expansion of trade with China and India. In 2016, trade with emerging economies accounted for 51% of Africa's exports and 46% of imports (UN, n.d.). However, increasing trade with emerging economies has not diversified the continent's export basket so far.

On average African economies face low product diversification and a high dependency on export of unprocessed goods (Figure 4.3). Intermediate and capital goods represent 49% of Africa's imports; by contrast, the comparable figures are 55% in LAC and 64% in Emerging Asia (AUC/OECD, 2018). Falling commodity prices have led to large trade deficits and caused a current account deficit of 6% of GDP in 2016 (UNCTAD, 2017).

Figure 4.3. Export compositions in Africa, 2016



Source: AUC/OECD (2018), *Africa's Development Dynamics 2018: Growth, Jobs and Inequalities*, <https://doi.org/10.1787/9789264302501-en>

## Vulnerable employment and declining productivity growth challenge Africa's economy

African countries have witnessed strong capital accumulation, a reduction in extreme poverty and some production transformation. However, the continent also faces rapid population growth and rising inequalities that call for further efforts to reduce poverty. At the same time, the proportion of vulnerable employment remains high and a lack of skills and infrastructure is hindering productivity growth.

Africa's proportion of vulnerable employment as own-account or family workers remains high and is likely to persist at 66% until 2022 (ILO, 2018). More than 282 million people are in vulnerable employment, and 30% of workers remain poor (AUC/OECD, 2018). Furthermore, Africa has the highest level of informal employment outside the agricultural sector, ranging from 34% of employed people in South Africa to 91% in Benin (ILO, 2018). Informal workers are highly vulnerable to economic shocks and often excluded from social protection systems. Because of rapid demographic and urban growth, youth unemployment has become a critical issue. In low-income African countries, only 17% of the working youth (7% of all youth) are full-time employees (AfDB et al., 2012).

Since 2000, labour has moved from less to more productive sectors of the economy. Furthermore, domestic consumption has increased, propelled by a surge in natural resource rents and remittances, while private investment and competition has helped expand activities with higher productivity levels. However, productivity gains from labour reallocation are now diminishing, as the most labour-absorbing sectors of the economies are experiencing a decline in their productivity. As a result, today African productivity lags behind Asia's in several sectors, including agriculture, transport, financial activities, construction and manufacturing (AUC/OECD, 2018).

## INFRASTRUCTURE CHALLENGES IN AFRICA

The positive impact of physical infrastructure on economic prosperity and business is well recognised. Improved infrastructure services such as transport, electricity, telecommunications, sanitation and sewerage systems positively affect productivity and encourage more regional integration and trade. Africa has recently experienced substantial economic growth, with an average annual growth rate of 4.7% between 2000 and 2017 (AUC/OECD, 2018). Simulations suggest that improving Africa's infrastructure could boost GDP growth by an additional 2.2% a year (Foster and Briceño-Garmendia, 2010). Increased access to infrastructure can also facilitate more intra-regional trade, particularly following the signing of the African CFTA agreement in March 2018 (UNECA/AUC/AfDB, 2017). In 2015, intra-African trade represented 18% of total exports in Africa, a 10% increase since 1995, although still a relatively low figure by comparison with Asia and Europe. Intra-regional trade for these areas stands at 59% and 69% respectively (Sow, 2018).

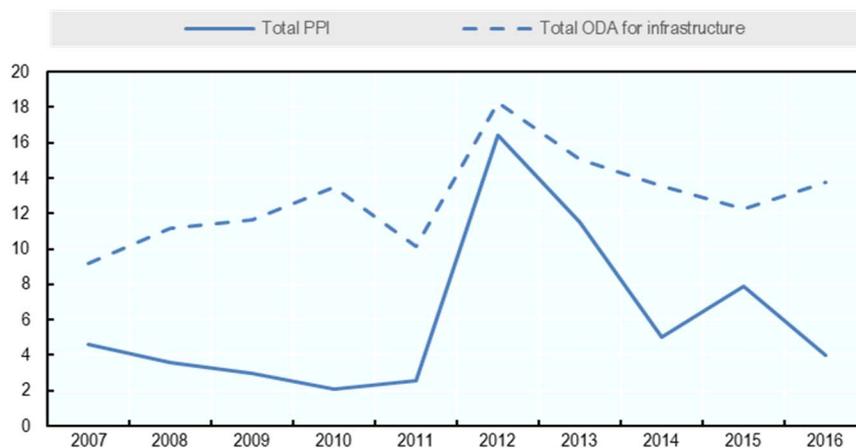
Improving connectivity is also essential in order to enhance Africa's integration into regional and global value chains. Effective and efficient transport networks enable companies to reach out to regional and international markets at lower cost. In addition to faster delivery of goods through improved cross-border roads, railways, and international ports and airports, African countries could import raw materials and intermediate goods more cheaply and export manufactured products more competitively.

However, infrastructure gaps persist in Africa, and can have a major impact on regional competitiveness. The gaps are present across several sectors, imposing additional costs on businesses and reducing productivity. For example, the poor quality of road, railway and harbour infrastructure generates an additional 30% to 40% of costs for intra-Africa commodity trading (UN-Habitat, 2014). Today, goods travelling between Lagos (Nigeria) and Accra (Ghana) are frequently transported by sea, despite the land proximity between the two cities (OECD, 2018a). The port of Lomé in Togo, a small West-African country, has become the leading port in the West African region, while Lagos' port in Nigeria has lost 30% of its container traffic since 2015 due to abnormally high costs and notorious congestion (Dynamar, 2018). Shortages of power and water supplies and inadequate information and communications technology (ICT) infrastructure can reduce productivity by as much as 40% (AfDB, 2013). Nearly 5% of annual sales are lost due to electrical outages in sub-Saharan Africa; the cost of fuel for backup power generation was estimated to be at least USD 5 billion in 2012 (OECD/IEA, 2014). Moreover, poor transport infrastructure accounts for 40% of logistics costs in coastal countries and 60% in landlocked countries (UN-Habitat, 2014). Finally, beyond improvements in physical hard infrastructure, investments in soft infrastructure should not be overlooked. The harmonisation of transport procedures and regulations, the simplification of customs procedures, and the improvement of warehousing management could be important ways to reduce transit costs and further benefit connectivity and trade (OECD, 2018a).

#### **Infrastructure financing trends in Africa**

Africa is facing a challenge in securing finance to meet its infrastructure needs. Current estimates suggest that the continent's infrastructure investment needs will amount to USD 68-152 billion per year (roughly 3-7% of GDP) over the coming decades (EIB, 2018). These sums cover both the maintenance and replacement costs of the existing infrastructure stock, as well as the construction of new assets. In addition, new needs are arising from rapid urbanisation (50% of Africans are expected to reside in urban areas by 2035), a growing population (doubling from 1.2 billion in 2019 to 2.5 billion by 2050) and economic growth, as well as the need to make infrastructure resilient to climate change (AUC/OECD, 2018). In order to fill this financing gap and to scale up infrastructure development, the continent must better involve the private sector (UNECA, 2017a). Despite their potential, private participation in infrastructure (PPI) projects have been limited so far (Figure 4.4).

Figure 4.4. **Official development assistance (ODA) and PPI in Africa, 2007-16**  
(USD billion)



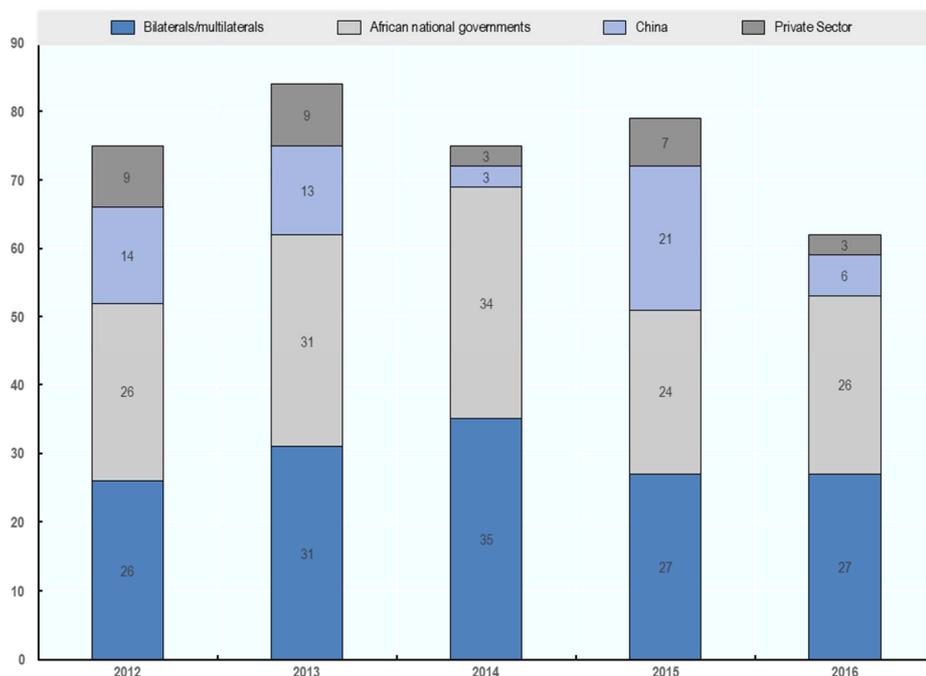
Note: PPI measures the investment in public infrastructure projects in which the private sector has at least a 20% participation.

Source: EIB. (2018), "Financing Infrastructure in Africa", in *Banking in Africa: Delivering on Financial Inclusion, Supporting Financial Stability*,

[https://www.eib.org/attachments/efs/economic\\_report\\_banking\\_africa\\_2018\\_en.pdf](https://www.eib.org/attachments/efs/economic_report_banking_africa_2018_en.pdf).

The overall annual commitments to infrastructure financing in Africa have fluctuated from USD 75 billion in 2012 to USD 62.5 billion in 2016, with 2013 recording the highest figure at USD 84 billion. The recent decline is due to a reduction of reported funding from China and a drop of private sector investments. Governments serve as the main source of infrastructure finance. In 2016, African national governments represented 42% of total infrastructure financing (more than USD 26 billion), while private investment commitments reached USD 2.6 billion, representing only 4% of the total (Figure 4.5).

Figure 4.5. Infrastructure commitment trends in Africa by source, 2012-16 (USD billion)\*



Note: \* at 2016 USD dollars

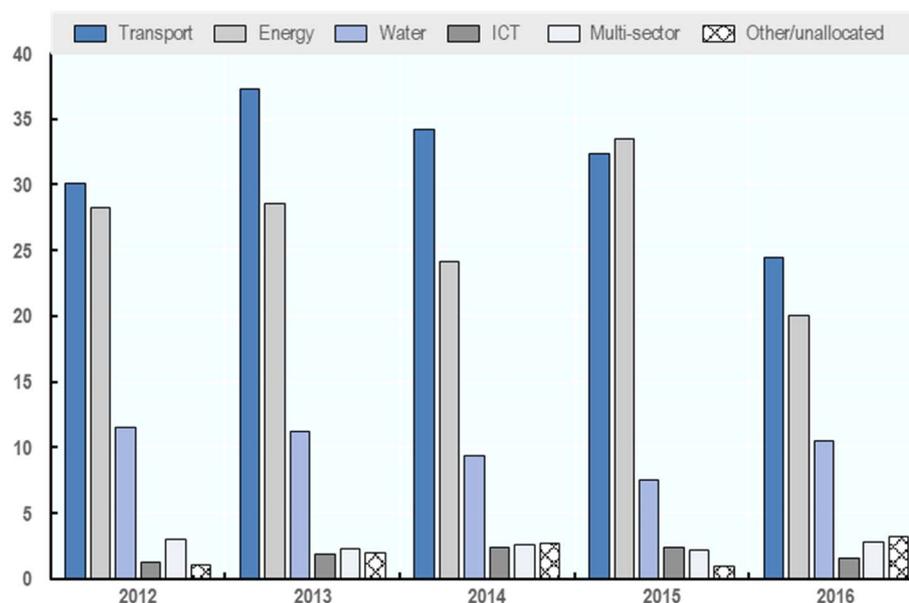
Bilaterals and multilaterals include contributions from BRIC (Brazil, Russian Federation, India, China), regional development banks (RDBs), G20, the World Bank, the African Development Bank (AfDB), the European Commission, the European Investment Bank (EIB), the Development Bank of Southern Africa, the Arab Fund for Economic and Social Development (AFESD), the Islamic Development Bank (IsDB), the Kuwait Fund for Arab Economic Development (KFAED), the Abu Dhabi Fund for Development (ADFD), the OPEC Fund for International Development (OFID), the Arab Bank for Economic Development in Africa (BADEA) and the Saudi Fund for Development (SFD).

Source: EIB (2018), "Financing Infrastructure in Africa", in *Banking in Africa: Delivering on Financial Inclusion, Supporting Financial Stability*,

[https://www.eib.org/attachments/efs/economic\\_report\\_banking\\_africa\\_2018\\_en.pdf](https://www.eib.org/attachments/efs/economic_report_banking_africa_2018_en.pdf).

The sectors with the largest proportion of financial commitments are transport and energy; these sectors captured 43% and 36% of total commitments respectively between 2012 and 2016. On the other hand, the proportion of infrastructure investments in water and ICT remains relatively low. These sectors drew in an average annual share of 14% and 2.6% respectively during the same period (Figure 4.6).

Figure 4.6. Infrastructure investments in Africa by sector, 2012-16 (USD billion)\*



Note: \* at 2016 USD dollars

Source: ICA (2017), *Infrastructure Financing Trends in Africa – 2016*,

[https://www.icafrica.org/fileadmin/documents/IFT\\_2016/Infrastructure\\_Financing\\_Trends\\_2016.pdf](https://www.icafrica.org/fileadmin/documents/IFT_2016/Infrastructure_Financing_Trends_2016.pdf).

Between 2012 and 2016, East Africa received an average of USD 16.8 billion in annual infrastructure financing, followed by West Africa (USD 15.8 billion) and North Africa (USD 14 billion). The relatively large volume of investments in East Africa was the result of increased public investments by Ethiopia, Kenya, Mauritius and Rwanda, mainly in transport and energy projects (EIB, 2018).

### Challenges to attracting private investment for infrastructure

Africa needs to reduce its infrastructure deficits and attract more private investments in order to realise its full economic potential. Countries must address key constraints to investments, such as insufficient regulatory frameworks, limited public sector capacity to deal with large infrastructure projects and inefficient financial markets (EIB, 2018).

Fostering a stable business environment must be a priority in order to attract long-term investment. African countries should address the policy and regulatory obstacles that are hindering private investment in infrastructure, such as regulatory uncertainties, bureaucracy and bribery (AUC/OECD, 2018). Stable and transparent regulatory frameworks encourage long-term planning and investment decisions. OECD estimates have shown that 10-30% of investments in publicly funded construction projects may be lost because of mismanagement and bribery (OECD, 2015a). Furthermore, regional initiatives to harmonise policies, laws and regulations have the potential to facilitate cross-border infrastructure development. For example, the Programme for Infrastructure Development in Africa (PIDA), developed by the African Union (AU), the United Nations Economic

Commission for Africa (UNECA) and other partners, aims to harmonise the cross-border rules, regulations, laws and policies governing cross-border infrastructure projects (UNECA, 2017b).

Firms have already highlighted at EMnet meetings how limited public sector capacity to manage large infrastructure projects and poor co-ordination across levels of government can be important barriers to the involvement of the private sector (OECD, 2017). Successful initiatives require not only co-ordination and shared responsibility between central and local governments, but also adequate capacity to design, prepare and implement bankable projects (OECD, 2015a).

Africa's financial markets serve as a barrier to resource mobilisation, as some local banks are not able to collect funds needed for long-term infrastructure investment. In particular, loans with long maturities are rare, interest rates can be excessively high, and infrastructure-related bonds are rarely issued (EIB, 2018). Considering these limitations, risk mitigation instruments can help mobilise additional private capital, such as for example the guarantees issued by the Multilateral Investment Guarantee Agency (MIGA), which is part of the World Bank Group.

### **Promoting quality infrastructure**

While addressing major constraints to infrastructure development is important, promoting quality infrastructure is also necessary. Quality infrastructure has become a central subject in global discussions following the adoption of the Ise-Shima Principles for Promoting Quality Infrastructure Investment (Box 4.1) under the Japanese presidency of the G7 in 2016 (OECD, 2018a).

These principles emphasise the need to develop sustainable and socially inclusive infrastructure that takes into account its social and environmental impact and follows economic and social development strategies. Quality infrastructure investments should provide a reliable supply of basic services while promoting safety, job creation and transfer of expertise to local communities, and avoiding competitive advantages based on compromised labour or environmental practices. Further G20 summits have affirmed these essential elements and have added open access, transparency and responsible financing as important elements to quality infrastructure.

#### Box 4.1. G7 Ise-Shima Principles for Promoting Quality Infrastructure Investment

“Reaffirming the crucial importance for stakeholders to work coherently to bridge the existing global demand-supply gap of infrastructure investment by promoting quality infrastructure investment so as to promote strong, sustainable and balanced growth and to enhance resilience in our society, as well as to contribute to the global efforts for the SDGs [Sustainable Development Goals], we strive to align our own infrastructure investment with the following principles. We further encourage the relevant stakeholders, namely governments, international organizations, including multilateral development banks (MDBs), and the private sector, such as in PPP [Public-Private Partnerships] projects to align their infrastructure investment and assistance with these principles, including the introduction and promotion of a transparent, competitive procurement process that takes full account of value for money and quality of infrastructure.

Principle 1: Ensuring effective governance, reliable operation and economic efficiency in view of life-cycle cost as well as safety and resilience against natural disaster, terrorism and cyber-attack risks

Quality infrastructure investment should ensure effective governance, economic efficiency, sustainability and reliable operation during the life span of a project as well as safety and resilience against natural disaster, terrorism and cyber-attack risks.

Principle 2: Ensuring job creation, capacity building and transfer of expertise and know-how for local communities

Quality infrastructure investment should seek to contribute to job creation for local work forces and to transfer of expertise and know-how to local communities.

Principle 3: Addressing social and environmental impacts

Quality infrastructure investment must consider the social and environmental impacts of infrastructure projects and duly address such impacts including by applying social and environmental safeguards that are in line with international best practices as reflected in the most relevant standards including those of existing MDBs.

Principle 4: Ensuring alignment with economic and development strategies including aspect of climate change and environment at the national and regional levels

Quality infrastructure investment should be aligned with economic and development strategies at the national and regional levels, through dialogues with stakeholders from the project preparation and prioritization phases. Relevant elements of economic and development strategies to be considered include the development of a global supply chain through enhanced connectivity; use of latest technology such as information and communication technology; promotion of private investment and attraction of new industries; medium and long-term plans based on a long-term and cross-sector demand forecast and other relevant information; and debt sustainability and fiscal outlook. Climate change resilience, energy security and sustainability, conservation of biodiversity, [and] disaster risk reduction should be considered including through further promotion of ecosystem-based approaches and green infrastructure.

Principle 5: Enhancing effective resource mobilisation including through PPP

Quality infrastructure investment should effectively mobilize resources including from the private sector through PPP and other forms of innovative financing, including through MDBs. To this end, joint efforts among stakeholders including host country governments to strengthen the enabling investment environment at national and sub-national government levels, as well as to enhance due process and transparency are essential.”

Source: Japan Ministry of Foreign Affairs (n.d.), G7 Ise-Shima Principles for Promoting Quality Infrastructure Investment, <https://www.mofa.go.jp/files/000196472.pdf>.

## BUSINESS INSIGHTS ON INFRASTRUCTURE AND REGIONAL CONNECTIVITY

Regional integration is crucial to sustainable and inclusive growth in Africa. Countries are increasing their efforts to create a single continental market for goods and services. Through the African CFTA agreement, governments have committed to remove 90% of tariffs on goods and to promote the free movement of people (see Box 4.2). Participants at the EMnet meeting agreed that improved infrastructure can facilitate the regional integration process and generate new opportunities for trade and investment. However, firms also confirmed that persisting infrastructure bottlenecks risk undermining current integration efforts. Estimates have put the costs of upgrading Africa's infrastructure at around USD 100 billion per year (AfDB, 2013a), two-thirds of which is required to build new infrastructure and the rest for maintenance activities. Recent capital expenditure only stood at about USD 25 billion per year (AfDB, 2013a).

This section features insights from the EMnet Africa meeting that was held in Paris on 30 October 2018 and explores where the private sector sees opportunities and challenges for infrastructure investment in Africa. It highlights policy reforms and recommendations that the private sector considers important to unlock further private investment.

### Box 4.2. The African Continental Free Trade Area

On 21 March 2018, the heads of 44 African countries met in Kigali, Rwanda, and signed the African CFTA agreement, one of the world's largest free trade agreements. The new African CFTA offers a stepping-stone for Africa's RECs to boost regional integration.

The agreement is to be signed by all 55 members of the African Union, thus uniting 1.2 billion people with a combined GDP of more than USD 2 trillion. As of early 2019, 49 countries have signed the agreement, while the ratification process is ongoing in a number of countries. The agreement enters into force once 22 countries have deposited their instruments of ratification. The African CFTA will be the largest free trade area in number of countries since the formation of the World Trade Organization (WTO).

The agreement will result in the tariffs for 90% of goods being reduced to zero, down from an average of 6.1%. According to the UNECA, the African CFTA has the potential to boost intra-African trade by 52% by 2022, by comparison with figures for 2010.

The African CFTA aims to achieve four main objectives:

- Create a single continental market for goods and services, with free movement of business people and investments, and thus accelerate the establishment of the Continental Customs Union and the African Customs Union
- Expand intra-African trade through better harmonisation and co-ordination of trade liberalisation and facilitation regimes and instruments across RECs and Africa in general
- Resolve the challenges of multiple and overlapping memberships, and expedite the regional and continental integration processes
- Enhance competitiveness at the industry and enterprise levels by exploiting opportunities for scale production, continental market access and better reallocation of resources.

Sources:

AUC/OECD (2018), *Africa's Development Dynamics 2018: Growth, Jobs and Inequalities*, <https://doi.org/10.1787/9789264302501-en>.

UNECA (2018a), "African Continental Free Trade Area – Questions & Answers", [https://www.uneca.org/sites/default/files/PublicationFiles/ga\\_cfta\\_en\\_230418.pdf](https://www.uneca.org/sites/default/files/PublicationFiles/ga_cfta_en_230418.pdf).

## **Businesses and governments should open a dialogue to promote quality infrastructure**

Quality infrastructure promotes strong, sustainable and balanced growth while addressing social and environmental concerns, including access to basic services. The private sector is willing to share its expertise and work with governments to design and develop plans for quality infrastructure in Africa.

During the EMnet discussions, companies highlighted the important role that firms can play in ensuring economic and social sustainability through quality infrastructure projects. Job creation, capacity building and transfer of expertise are all key elements of the principles of quality infrastructure (OECD, 2018a). French multinational SUEZ has built more than 500 drinking water and sanitation plants in Africa to serve a fast-growing population. In Egypt, SUEZ and its local partner (ArabCo) have aided the city of Alexandria in rehabilitating and extending a major treatment plant by applying new technologies for biological wastewater treatment (SUEZ, 2018). In Uganda, the company is applying new technologies adapted for the treatment of Lake Victoria's water in order to provide Kampala citizens with drinking water (SUEZ, 2018). Similarly, Veolia is building a wastewater treatment plant in South Africa, which recycles all of its wastewater and reduces the consumption of potable water by recycling wash water (Frankson, 2018). Siemens Gamesa, a leading company in the wind industry which has built more than 2.9 GW<sup>2</sup> of wind projects in Africa and 90GW globally, opened the first blade manufacturing facility in the Middle East and Africa region in Tangier, Morocco, in 2017. The facility, which supports more than 600 direct local jobs and 500 auxiliary positions, can help Morocco's national renewables programme, which aims to produce up to 52% of clean electricity by 2030 (with 20% coming from wind energy). In addition to providing high-skilled jobs, the facility can serve markets in the rest of Africa, Europe and the Middle East (Siemens Gamesa, 2017).

## **Ensuring job creation and transfer of expertise to local communities is essential**

Strong linkages between foreign multinationals and the local economy are critically important for the creation of more quality jobs, and the promotion of better knowledge and technology transfers (AUC/OECD, 2018). Companies attending the EMnet meeting stressed the importance of creating a local ecosystem by hiring local staff in charge of the design, construction, operation and maintenance of the infrastructure projects. French multinational electric utility company ENGIE, for instance, has set a goal to recruit locally in Africa, and this mission has been applied to its infrastructure projects (ENGIE, n.d.). For the Dedisa thermal power plant project in South Africa, for example, ENGIE hired 1 500 local workers and created 1 000 indirect jobs in a region highly affected by unemployment (ENGIE, 2016).

EMnet meeting participants also highlighted that localising the labour force from the early stages of a project is essential, as it results in more highly trained and skilled people available to operate and maintain the infrastructure once construction is finished. In South Africa, multinationals such as Veolia have set up partnerships with local firms in line with the country's Broad-Based Black Economic Empowerment (B-BBEE) regulations in order to share economic benefits with the wider community (Veolia, 2017).

However, the hiring of more local employees alone does not always result in a transfer of expertise to local communities. Positive spill-over effects are also generated when on-the-job

training helps local employees to improve their skills (AUC/OECD, 2018). For example, Huawei Technologies has established training centres for its employees, partners and customers in several African countries.<sup>3</sup> The centres offer training on telecommunications engineering, project management, and “soft skills” such as communication and team work (Tsui, 2016). SUEZ is another example of a company transferring expertise and know-how to local communities. In addition to supplying drinking water via a project in the Niger Delta, Nigeria, the company provides training and assistance on water management to local associations of users (SUEZ, 2018). By 2017, Siemens Gamesa had devoted 366 000 hours of employee training to Moroccans, both in-house in Tangier and at other locations, in a major effort to boost the skills of its employees (Siemens Gamesa, 2017).<sup>4</sup>

### **Involving all relevant stakeholders at the onset of the project is important**

Businesses attending the EMnet meeting emphasised that the success of infrastructure projects relies on project structuring. At the onset of the project, all relevant stakeholders need to be consulted on costs and benefits, and the outcomes of the consultations should be incorporated into the planning and implementation phases. Companies stressed that their early and broad involvement was important for later success. For example, contractual specifications and distribution of responsibilities regarding how to implement the project are indispensable in preventing potential future conflicts (Spiess and Felding, 2008).

OECD analysis on stakeholder engagement in water infrastructure projects demonstrates that stakeholders’ participation may help increase economic and social benefits (OECD, 2015b). For example, the benefits of stakeholder engagement include stronger acceptance of the project and a greater sense of ownership. Although the costs of involving all relevant stakeholders from the early stages of a project should not be underestimated, the benefits that may arise in the long term should be considered of greater impact (OECD, 2015b).

### **Sustainable projects should take debt servicing capacity into account**

EMnet meeting participants highlighted that African countries need to undertake infrastructure development spending without jeopardising debt sustainability. Debt vulnerability increases the exposure of countries’ budgets to external shocks, such as the availability of liquidity in international markets, interest rate volatility, and currency fluctuations (AUC/OECD, 2018). The issue of over-indebtedness can also be problematic at the subnational level – for example, when a province or municipality is the contractor for a major infrastructure project. The OECD has provided guidelines on public investments across levels of government, including that co-financing with the private sector should always be tailored to the constraints of the subnational governments. In OECD member countries, subnational governments undertook 72% of all public investments on average in 2012 (OECD, 2013a).

### **Businesses stress the importance of enhancing transparency**

Companies participating in the EMnet Africa meeting pointed out that African governments should benefit from international experience and good practices for enhancing transparency and fostering efficiency in infrastructure development projects. There is indeed evidence that corruption

is concentrated in sectors with large spending on infrastructure (Sobják, 2018). According to the *OECD Foreign Bribery Report: An Analysis of the Crime of Bribery of Foreign Public Officials*, two-thirds of foreign bribery cases occurred in four sectors highly related to infrastructure: extractives (19%), construction (15%), transport and storage (15%), and information and communication technologies (10%) (OECD, 2014a). In a joint report, the OECD and the African Development Bank estimated that USD 148 billion is lost to corruption every year (AfDB/OECD, 2016).

The OECD's *Integrity Framework for Public Investment* provides further guidance and good practices by identifying corruption entry points over the entire investment cycle. The framework identifies tools and mechanisms to promote integrity, including measures on ethical standards, conflicts of interest, monitoring and evaluation systems, and transparency (OECD, 2016b).

### **Strengthening public governance and regulations**

Strengthening public governance and regulations for infrastructure projects can boost public investment and avoid delays, extra spending and quality issues (OECD, 2015a). Business representatives emphasised that investment depends on trust and on the assessment of the overall business risk. In this respect, adequate design, preparation and implementation are vital in order to generate the interest of private investors. Companies also stressed that the rules of tenders need to be clear and accessible. Identifying public sector capacity to manage infrastructure projects and provide support is critically important for enhancing investments. In this regard, the OECD report *Towards a Framework for the Governance of Infrastructure* highlights a number of challenges and solutions to infrastructure policy making in order to help governments better manage these projects (OECD, 2015a).

EMnet meeting participants also stressed that simple and stable policy and regulatory frameworks enhance predictability and visibility, helping long-term investment decisions. Companies highlighted that establishing regulations as well as incentives for enhancing infrastructure are critical, specifically for project preparation, procurement and contract management (PPIAF, 2018). The adoption and implementation of regional initiatives to harmonise policies, laws and regulations across the continent can help overcome regulatory hurdles for cross-border infrastructure. A relevant example is the Tripartite Transport and Transit Facilitation Programme Eastern and Southern Africa (TTTFP), which aims to develop and implement harmonised road transport policies, laws, regulations and standards for efficient cross-border road transport in the eastern and southern African regions (EAC, 2017). Several governments have also implemented clear programmes to attract investment from independent power producers, for example in Egypt (Infinity Solar) through its new feed-in tariff (Climatescope, n.d.) or in South Africa through the Renewable Energy Independent Power Producer Procurement (REIPPP) Programme (South Africa Department of Energy, n.d.).

### **Developing financial markets is key for resource mobilisation**

At the EMnet meeting, companies stressed that underdeveloped financial markets limit resource mobilisation for infrastructure projects. Africa's capital markets remain relatively small and illiquid, which limits the ability of countries to attract and efficiently direct domestic and foreign investments (NEPAD/OECD, 2009). Furthermore, companies indicated that the banking sector in Africa does

not cater to the long-term needs of infrastructure investments, as many bank loans are offered with short maturities and high interest rates (AfDB/OECD/UNDP, 2017). According to a World Bank cross-country analysis, 20-year loans were available in only 6 of 24 African countries surveyed. In three of those six countries, the loan interest rate was above 20% (EIB, 2018).

Risk mitigation instruments, convertible bonds and guarantee schemes are some examples of ways to enhance investor confidence in local capital markets (NEPAD/OECD, 2009). Furthermore, strengthening domestic resource mobilisation through increased tax compliance and efficient tax administration systems can help governments raise additional finance for infrastructure projects (EIB, 2018).

### **PPPs as an instrument to upgrade infrastructure**

PPPs are long-term contractual arrangements between the government and the private sector whereby the latter delivers and funds public services using a capital asset, sharing the associated risks (OECD, 2012). EMnet meeting participants stressed that the effective alignment between public objectives and profitability for the private sector is key for the success of PPP projects. In addition, the capability of the government to prepare, procure and manage such projects is a prerequisite to secure the expected efficiency gains (World Bank, 2018). Discussions during the EMnet meeting focused on identifying the most important determinants of efficient PPPs in infrastructure projects in Africa.

### **PPPs can be an effective financing mechanism**

Companies participating in the EMnet meeting agreed that well-designed PPPs can bring greater efficiency and sustainability to infrastructure projects. To further that goal, companies recommended that governments open specific PPP offices within relevant government departments. OECD analysis confirms that by harnessing the private sector's expertise, PPPs can sometimes provide a service in a more efficient manner than can be achieved from other forms of procurement (OECD, 2012). Additionally, in return for reasonable financial compensation, a PPP is a well-balanced instrument for complex projects and is ideal for governments wishing to devote resources to other projects and to allocate risks to the partners best suited to manage them (Groupe ADP, 2018). The PPP model used in the Madagascar Airport concession provides a good example of how PPPs can be an effective financing mechanism (Box 4.3).

### Box 4.3. Madagascar Airport PPP Case Study

The Madagascar Airport concession is a PPP between a consortium that includes Aéroports de Paris International, the French construction company Bouygues, and the government of Madagascar. The partnership involves a 28-year concession to operate the Antananarivo and Nosy Be airports in Madagascar. The project, which reached financial closure in 2017, was designed at zero cost and zero debt for the public finances of Madagascar, as all costs were borne by the consortium. The project revenues were in euros, funded from the fees paid by passengers travelling from abroad, rather than in the local Malagasy currency (ariary). This arrangement significantly reduced the exchange rate risk, particularly during a time of volatility for the domestic currency (World Bank, 2015).

*Sources:*

*Groupe ADP (2017), "Success stories in Africa, ongoing projects in Africa, focus on the Madagascar case", presentation at the Accra, Africa Air Show, 2017.*

*Paris Airport (2017), "Ravinala Airports, the concession company for the Antananarivo and Nosy Be airports in Madagascar, formed by Groupe ADP, Bouygues Bâtiment International, Colas and Meridiam Africa, finalises its funding arrangements and begins work", press release, <https://www.parisaeroport.fr/docs/default-source/groupe-fichiers/presse/cp-juillet-septembre-2017/pr-05072017-funding-arrangements-madagascar-airports.pdf?sfvrsn=2>.*

Morocco's largest solar power station, located in Ouarzazate (Box 4.4), is considered a good example of a successful PPP model and illustrates how to engage key stakeholders for the success of the initiative (Falconer and Frisari, 2012).

However, PPPs are not always the best solution for infrastructure development projects. EMnet meeting participants stressed that the selection of PPP projects should be based on securing value for money, which means the optimal combination of quality, features and price, calculated over the entire project cycle (OECD, 2012). OECD PPP guidelines recommend conducting a prudent investigation into which investment method is likely to yield the most value for money. In addition, the government should ensure that there is sufficient competition in the market when a tender process is launched (OECD, 2012). Successful PPPs require careful public involvement and expertise in addition to strong government leadership (AUC/OECD, 2018). Furthermore, the expected gains from PPPs can only be realised when local authorities possess adequate skills to properly manage this particular projects. Otherwise, the PPP financing model could eventually become a costly option (OECD, 2017).

#### Box 4.4. Solar power in Morocco

Morocco has shown strong, diversified FDI inflows, contrasting with the wider trend in North Africa (UNCTAD, 2018b). While carmakers have been attracted by Morocco's special economic zones, tax incentives and easy access to Europe, its natural resource potential has also been receiving large amounts of investment.

The Ouarzazate (Noor) Solar Power Station, once fully constructed and commissioned, will provide 580 MW<sup>5</sup> of green electricity to a country that, just a few years before, used imported fossil fuels for 98% of its energy needs. With electricity demand growing at 7% per year since 2003, the government proposed an increase in the proportion of renewables to 42% of the total energy mix by 2020 by promoting green energy as a way to establish energy security and environmental sustainability.

The Noor 1 plant has been operational since 2016, providing 160 MW of electricity. The first phase was funded by the AfDB (EUR 500 million), while the overall investment in phase two (USD 2 billion) was made possible with funds from the AfDB, AFD, EC, EIB, KfW and the World Bank. Chinese companies are currently constructing Noor 2 and 3 in what is to be the largest solar park in the world.

Other recent investments in Morocco's renewable energy sector include the French company Voltalia's plans to build two hydropower plants. A consortium including the Moroccan company Nareva, the Italian utility Enel Green Power and Siemens Gamesa completed the first 200MW wind farm of a 850MW wind programme, representing USD 1.2 billion of investments. Furthermore, Sumitomo of Japan and ACWA Power International from Saudi Arabia are also developing solar plant in Morocco.

*Sources:*

European Commission (2019), "Noor III: Tower plant of the Ouarzazate Solar Complex", [https://ec.europa.eu/europeaid/blending/noor-iii-tower-plant-ouarzazate-solar-complex\\_en](https://ec.europa.eu/europeaid/blending/noor-iii-tower-plant-ouarzazate-solar-complex_en).

Klassa, A. (2018), Morocco positions itself as more independent FDI portal to Africa, <https://www.ft.com/content/28187230-f970-11e8-a154-2b65ddf314e9>.

UNCTAD (2018b), World Investment Report 2018: Investment and New Industrial Policies, [http://unctad.org/en/PublicationsLibrary/wir2018\\_en.pdf](http://unctad.org/en/PublicationsLibrary/wir2018_en.pdf).

World Bank (2014), "Expansion of Morocco's largest solar complex to provide 1.1 million Moroccans with clean energy", press release, <http://www.worldbank.org/en/news/press-release/2014/09/30/expansion-morocco-solar-complex-clean-energy>.

#### Partnership with multilateral development banks can crowd in more investment

Multilateral development banks (MDBs) play a key role in infrastructure financing in Africa, by providing de-risking elements and bridging the finance gap. Estimates show that multilateral and bilateral debt was used in 6 out of 23 PPI projects in sub-Saharan Africa in 2015, providing USD 363 million in loans to projects worth USD 3.2 billion in total (PPI Projects Database, 2015). MDBs have also taken a number of initiatives – such as the Public-Private Infrastructure Advisory Facility (PPIAF) – to support infrastructure investments in Africa beyond financing (EIB, 2018). Programmes such as the World Bank's Scaling Solar programme (IFC, 2019) or the European Union's External Investment Programme (EC, 2018) further unlock private investments in Africa through expertise, finance, guarantees and policy dialogue.

EMnet participants highlighted that the expertise and investment flexibility of MDBs in infrastructure projects can be very important in order to crowd in more investment from institutional investors (including insurance companies, pension funds, and sovereign wealth funds). MDBs can also provide technical support to increase the quality and impact of projects and to make them bankable and attractive for the private sector (EIB, 2018).

## Enhance regional transportation networks to better integrate global value chains

Firms attending the EMnet meeting agreed that regional transportation links can provide opportunities to diversify exports and develop business internationally. Strengthening value chains by deepening connectivity is particularly important in a context of rising domestic demand, where Africa's population is growing fast, a new middle class is emerging, and the demand for food is projected to triple by 2030 (AUC/OECD, 2018).

### More investment is required in physical and soft transport infrastructure

Investment to enhance transportation connectivity is necessary in order to improve Africa's integration in regional and global value chains. However, according to the EMnet meeting participants, a number of issues remain. For instance, despite some progress, transport infrastructure for intra-African trade is still less developed than Africa's links with the rest of the world (AfDB/OECD/UNDP, 2017). In many regional communities, tariffs have been significantly lowered, but the time and cost of moving goods across borders remain high (AfDB/OECD/UNDP, 2017). For instance, in 2012, shipping a 20-foot container by sea from China to Mombasa, Kenya, cost approximately USD 2 000, whereas transporting the same container from Mombasa to Kigali, Rwanda, cost twice as much (Sebuny, 2015).

Roads remain the main mode of transport, carrying 90% of passengers and 80% of goods, although approximately 50% of the roads in Africa remain unpaved (OECD, 2018a). Major transport corridors such as the Maputo Development Corridor linking South Africa to Mozambique and the electric rail linking Djibouti and Ethiopia, which opened in 2016, provide exemplary cases that can be replicated in other contexts (AfDB/OECD/UNDP, 2017).

In addition to improvements in physical infrastructure, participants of the EMnet meeting stressed the importance of the soft aspect of transportation systems. Inefficiencies remain, due to complex transit regulations and extensive delays in obtaining documentation at borders (Sebuny, 2015). The harmonisation of transport procedures and regulations and the improvement of customs clearance and warehousing are all elements that can reduce transit costs, increase cross-border trade and boost business productivity (OECD, 2018a).

### Air connectivity has great potential

EMnet meeting participants also stressed that the need to improve transport infrastructure can become an opportunity. Discussions centred on sectors with great potential for investment in Africa. According to the International Air Transport Association (IATA), Africa is set to become one of the fastest-growing aviation regions in the next 20 years, with an annual expansion rate of nearly 5%. A regional initiative, the Single African Air Transport Market, is set to open Africa's skies and facilitate improving intra-African air connectivity (El-Houry, 2018).

Further liberalisation of visa regimes can boost the aviation sector and the wider economy. Already, the African Union and individual countries are taking important steps in the right direction (AU, 2018). The *Africa Visa Openness Report*, a joint publication by the African Union and the African Development Bank, shows that Africans do not need a visa to travel to 25% of other African

countries (up from 22% in 2017) (AfDB/AU, 2018). Furthermore, they can obtain visas on arrival in 24% of other African countries and need visas to travel to 51% of other countries in the continent.

The African Union and the African Development Bank recommend further improvements in air connectivity, for example by promoting visa-free regional blocs, multi-year visas, visa-on-arrival schemes and e-visas (AU, 2018). As well as boosting the aviation sector, increased connectivity also yields benefits to the wider economy. The authors of a study undertaken in 2017 calculated that liberalisation in South Africa alone could create 15 000 new jobs and generate USD 284 million in additional GDP (Kacou and El-Houry, 2017).

### **Proper pricing for transport infrastructure is necessary**

The importance of flexibility from governments regarding the pricing of transport infrastructure was identified as a key component of a successful infrastructure project. EMnet participants stressed how price differentiation could be an important element in the concession agreement, introducing a fixed fee for small vehicles but a higher fee for SUVs or trucks.

Apart from flexibility, the companies also suggested the need for more clarity upfront about the cost structures for infrastructure projects. In order to lower business risks and uncertainties for the private sector, the International Transport Forum has stressed the importance of including some elements on the pricing model already in the planning phase of the project (ITF, 2017b).

## **Clean and renewable energy infrastructure to build Africa's sustainable future**

The private sector considers green energy infrastructure to be a sector that will generate important investment opportunities, given the expected growth in electricity demand, coupled with Africa's vast renewable energy potential and the current limited power supply. EMnet discussions addressed the role that governments can play in scaling up investment in green infrastructure. In sub-Saharan Africa, only 43% of the population has access to electricity (IEA, 2018). Roughly, 600 million sub-Saharan Africans remain without access to energy, a number that is set to remain stable this decade due to population growth and in spite of recent electrification efforts (OECD/IEA, 2014). Eighty percent of those without access to electricity are located in the rural areas.

### **Africa must diversify its energy mix**

Given that energy demand in Africa is projected to triple by 2030 (IRENA, 2015), countries in the region are confronted with the challenge of finding new sources of energy. Currently, Africa heavily relies on a mix of biomass and fossil fuels. While biomass accounts for approximately half of the continent's total primary energy supply, coal and natural gas account for about 14% each, and oil accounts for approximately 22%. Hydropower represents about 1% of the total primary energy supply in Africa (IRENA, 2015). By 2018, 49 out of 54 African countries had ratified their National determined contributions (NDCs) as part of the Paris Agreement. Although the continent produces less than 4% of total global greenhouse gas (GHG) emissions, it has much to contribute to the achievement of the long-term goal on climate mitigation.

Africa could turn the need to increase the electricity supply into an opportunity by building a more resilient, green and sustainable power sector. EMnet participants confirmed that there is an

important untapped opportunity for investment in renewable energy. Many African countries have abundant solar resources, while central and southern regions have more biomass and hydropower potential. Wind energy resources are of the highest quality in the northern, eastern and southern regions, while geothermal energy is mainly concentrated along the East African Rift Valley (OECD/IEA, 2014). Studies also show that the continent could potentially meet nearly one-quarter of its energy needs by 2030 through indigenous sources of clean and renewable energy (IRENA, 2015). The International Renewable Energy Agency's (IRENA's) *Africa 2030: Roadmap for a Renewable Energy Future* estimates a 100 GW potential for both hydro and wind energy, and another 90 GW for solar energy (IRENA, 2015). The use of modern renewable energy technologies is on the rise across Africa, where countries are uniquely positioned to leapfrog the traditional centralised energy supply model (IRENA, 2015).

African countries have to attract more investment and harness their own plentiful renewable energy sources. Estimates show that the continent will require USD 70 billion per year for the power sector between 2015 and 2030 in order to keep pace with rising energy demand. This can be split into USD 45 billion annually for generation capacity and USD 25 billion for transmission and distribution. Renewable energy sources could account for two-thirds of total investments in generation capacity – or up to USD 32 billion per year (Table 4.1).

**Table 4.1. Cumulative investment needs in the power sector in Africa, 2015-30**  
(USD billion)

Region	All generation	Large hydro	Other renewables	Transmission and distribution
North Africa	342	2	218	186
West Africa	89	36	31	52
Central Africa	32	13	17	14
East Africa	72	36	21	49
Southern Africa	145	18	94	74
<b>Total</b>	<b>681</b>	<b>106</b>	<b>381</b>	<b>375</b>

Note: Totals may vary due to rounding estimates.

Source: IRENA (2015), *Africa 2030: Roadmap for a Renewable Energy Future*, [https://www.irena.org/DocumentDownloads/Publications/IRENA\\_Africa\\_2030\\_REmap\\_2015\\_low-res.pdf](https://www.irena.org/DocumentDownloads/Publications/IRENA_Africa_2030_REmap_2015_low-res.pdf).

### Small-scale solutions for renewable energy production are becoming more popular

EMnet participants emphasised that along with meeting energy needs in a cost-effective and environmentally sustainable manner, the deployment of renewable energy technologies can promote inclusive economic and social development. The benefit comes from renewable energy technologies' characteristics that allow them to be deployed locally both at small and large scale, which in turn opens up new forms of financing and productive uses, and broadens electricity access

that can run independently from central control. This is particularly the case for rural and dispersed communities not served by the main electricity grid (IRENA, 2015).

Some African countries have started to reap the benefits of proven technologies, including mini- and off-grid energy solutions combined with battery storage systems. For instance, the use of wind for off-grid applications for water pumps in the agricultural sector is widespread in southern Africa, where more than 300 000 units are in operation (IRENA, 2015). In addition, sizeable markets for off-grid solar home systems have been created in countries such as Kenya and Tanzania. The falling cost of technology along with energy efficiency gains in end-use devices are facilitating this market growth (OECD/IEA, 2017).

### **Public policies to facilitate investment in renewable energy are required**

Firms agreed that governments could do more to implement policies to encourage more private investment in renewable energies. In particular, they highlighted that it would be important to integrate renewables into national and regional energy plans, providing investors with stable, long-term and attractive policy frameworks. Several countries have implemented specific initiatives and measures to scale up renewable energy (IRENA, 2015). For example, South Africa is on track to achieve near-universal access to electricity by 2030, largely as a result of its Integrated National Electrification Programme, which combines grid extension and solar home system strategies (OECD/IEA, 2017). Governments can give further public support to renewable energy by providing clear energy distribution plans and by updating the grid and transmission infrastructure.

In addition, companies emphasised the importance of building an ecosystem that could enable people to pay for electricity and reimburse the long-term investment made to build the infrastructure. In many cases, end-user electricity tariffs do not fully reflect costs or a reasonable return on invested capital. In particular, low returns and high transmission and distribution costs often deter additional investment in the sector (OECD/IEA, 2014). An optimal mix of support mechanisms, such as for example feed-in tariffs and net metering regulations, was suggested as a way to incentivise more private investment. OECD analysis also recommends that governments choose their own optimal incentive schemes, taking into account national circumstances such as their renewable energy potential, the current energy policy framework and the degree of energy market liberalisation (OECD, 2013b).

Regional integration in the power sector further promises to facilitate investments in Africa. Examples of “power pools” include the Central Africa Power Pool (CAPP), the Comité Maghrébin de l'Electricité (COMELEC) for northern African countries; the Eastern Africa Power Pool (EAPP); the Southern African Power Pool (SAPP); and the West African Power Pool (WAPP) (AfDB, 2013b). Power pools can attract investment and increase the security of the energy supply and mix. They can reduce the cost of doing business and prices for consumers (IRENA, 2015). In a full energy integration scenario, power pools could save USD 33 billion per year by 2040, which could be allocated to other areas where needed (AfDB, 2013b).

### **Digital infrastructure can unlock Africa's economic potential**

EMnet participants highlighted that digital infrastructure can improve firms' productivity and enhance Africa's comparative advantage in global production networks. Growing connectivity and

rapid expansion of digital technologies, such as digital financial services, e-government, cloud computing solutions and e-commerce platforms, generate numerous opportunities for businesses and provide life-changing experiences for individuals. For example, digital finance not only enhances productivity and efficiency by saving costs and time, but it also facilitates innovation (Riley, 2018). An example is M-TIBA, a mobile health wallet launched by CarePay, a financial technology company and payments administrator, in partnership with Safaricom, PharmAccess Foundation and UAP Insurance. This digital platform in Kenya enables people to save, send, receive and pay money for medical treatment. While patients benefit from easy access to personal healthcare, health providers receive faster payment and insurance companies have lower administration costs (CarePay, n.d.).

Public and private institutions consider cloud computing an important cost-saving instrument as well as a means to enhance efficiency and output (OECD, 2014b). The Kalangala Oil Palm Growers Trust (KOPGT), which administers government loans to Ugandan farmers, has adopted the cloud software application SAP Rural Sourcing Management to help them grow their business. This platform helps smallholder farmers enhance food production, by connecting them to the local markets, estimate their payment more accurately, by checking the global price for palm oil, and better communicate with buyers about the quantity and delivery of products (Meyerhoff, 2018).

### **There is a shortage of digitally skilled workforce**

Firms stressed the importance to develop a skilled workforce to accompany the digital transformation. This is even more relevant in a context where digitalisation puts traditional manufacturing jobs at risk. In Ethiopia, for example, 85% of jobs are in sectors susceptible to automation. In countries such as Angola, Mauritius, Nigeria, Seychelles and South Africa, more than half of current jobs are also at high risk of computerisation (AUC/OECD, 2018). National education systems need to adapt to the new job requirements emerging in the digital era. Attempts to put in place policies enhancing ICT skills have already been made in some African countries such as Botswana, Rwanda, Uganda and Zambia (Banga and Willem te Velde, 2018).

Many companies are also doing their part and have announced initiatives to support digital skills development. IBM, for example, announced a USD 70 million initiative to provide free digital skills training to 25 million African youth over five years (IBM, 2017). Uber is also helping its drivers and passengers improve their digital and financial literacy in partnership with a local financial services group (Uber, n.d.).

### **E-government services can better support businesses**

Digital strategies can ensure greater transparency, openness and inclusiveness of government processes and operations (OECD, 2014c). Firms that participated in the EMnet meeting agreed that digital government services can play a critical role in unlocking Africa's economic potential. For example, e-government has great potential to deliver more efficient and higher-quality public services. The government of Mauritius, for instance, has identified e-government as a key initiative to provide an effective delivery of public services on a 24/7 basis to citizens and to the business community (National Computer Board, n.d.). The average clearance time for goods in the country decreased from 4 hours to just 15 minutes for non-litigious declarations after the launch of the online

portal National Single Window (UN/CEFACT, 2016). South Africa is another example of a country that has made great advancements in e-government. The South African e-procurement system allows open and transparent bidding on government tenders, and the e-filing initiative facilitates the electronic submission of tax returns and payments by taxpayers and tax practitioners (Mutula and Mostert, 2010). At the continental level, governments have recognised that taking advantage of the opportunities of the African CFTA requires the development of a robust digital ID and payments system (UNECA, 2018b).

## CONCLUSION

Africa finds itself at a crossroads. It has the opportunity to use its demographic and economic momentum to realise sustainable and inclusive growth. At a time when African governments have signed the African CFTA agreement, infrastructure development is a critical engine for Africa's growth and integration. Electrification using its vast renewable resources, both at national and regional levels, can support sustainable growth, thus enabling African countries to retain control of their natural resources and their energy destiny. Through data sharing, innovation, and transfer of expertise and technology, the private sector provides an important contribution to the development of infrastructure in the continent. EMnet meeting participants agreed that the private sector plays a significant role in upgrading the transportation network, supporting the acceleration of renewable energy in the energy mix, and promoting the digitalisation process.

Countries must focus on attracting more private investment by improving investment policy frameworks, increasing public sector capacity to deal with large infrastructure projects, and further developing financial markets. Opening a dialogue on quality infrastructure between the public and the private sector, sometimes in partnership with international financial institutions or multilateral development banks in order to bridge financing gaps, can ensure that new investments in infrastructure are socially and economically sustainable. New approaches with increased local investment, better risk mitigation and an enabling regulatory framework can help. Finally, governments should further prioritise efforts related to the governance and regulation of infrastructure projects in order to increase efficiency and transparency.

## Notes

- <sup>1</sup> Emerging Asia refers to the ASEAN-10 which includes, Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Viet Nam, India and the People's Republic of China.
- <sup>2</sup> Gigawatt is a unit of power equal to one billion (10<sup>9</sup>) watts.
- <sup>3</sup> Huawei Technologies training centres are established in Angola, the Democratic Republic of the Congo, Egypt, Kenya, Morocco, Nigeria and South Africa.
- <sup>4</sup> Siemens Gamesa has built projects in Algeria, Egypt, Kenya, Mauritania, Mauritius, Morocco, South Africa and Tunisia.
- <sup>5</sup> Megawatt is a unit of power equal to one million watts, especially as a measure of the output of a power station.

## References

- AfDB (2013a), *Supporting the Transformation of the Private Sector in Africa: Private Sector Development Strategy, 2013-2017*, African Development Bank Group, Abidjan, [https://www.afdb.org/fileadmin/uploads/afdb/Documents/Policy-Documents/2013-2017\\_-\\_Private\\_Sector\\_Development\\_Strategy.pdf](https://www.afdb.org/fileadmin/uploads/afdb/Documents/Policy-Documents/2013-2017_-_Private_Sector_Development_Strategy.pdf).
- AfDB (2013b), *Power Trade in Africa and the Role of Power Pools*, African Development Bank Group, <https://www.afdb.org/en/blogs/industrialisation-and-trade-corner/post/power-trade-in-africa-and-the-role-of-power-pools-12101/>.
- AfDB/AU (2018), *Africa Visa Openness Report 2018*, African Development Bank Group, Abidjan/African Union, [https://www.visaopenness.org/fileadmin/uploads/afdb/Documents/VisaOReport2018\\_R15jan19.pdf](https://www.visaopenness.org/fileadmin/uploads/afdb/Documents/VisaOReport2018_R15jan19.pdf)
- AfDB/OECD (2016), *Anti-Bribery Policy and Compliance Guidance for African Companies*, African Development Bank Group, Abidjan/OECD Publishing, Paris, <http://www.oecd.org/corruption/anti-bribery/Anti-Bribery-Policy-and-Compliance-Guidance-for-African-Companies-EN.pdf>.
- AfDB/OECD/UNDP (2017), *African Economic Outlook 2017: Entrepreneurship and Industrialisation*, OECD Publishing, Paris, <https://doi.org/10.1787/aeo-2017-en>.
- AfDB/OECD/UNDP (2016), *African Economic Outlook 2016: Sustainable Cities and Structural Transformation*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/aeo-2016-en>.
- AfDB et al. (2012), *African Economic Outlook 2012: Promoting Youth Employment*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/aeo-2012-en>.
- AU (2018), "African countries are becoming more open to each other; 2018 Africa Visa Openness Report shows", press release, 28 November, African Union, <https://au.int/en/pressreleases/20181128/african-countries-are-becoming-more-open-each-other-2018-africa-visa-openness> (accessed 3 January 2019).
- AUC/OECD (2018), *Africa's Development Dynamics 2018: Growth, Jobs and Inequalities*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264302501-en>.
- Banga, K. and D. Willem te Velde (2018), *Digitalisation and the Future of Manufacturing in Africa*, Supporting Economic Transformation, London, [https://set.odi.org/wp-content/uploads/2018/03/SET\\_Digitalisation-and-future-of-African-manufacturing\\_Final.pdf](https://set.odi.org/wp-content/uploads/2018/03/SET_Digitalisation-and-future-of-African-manufacturing_Final.pdf).
- CarePay (n.d.), "M-TIBA", webpage, [www.carepay.co.ke/product/m-tiba](http://www.carepay.co.ke/product/m-tiba) (accessed 23 October 2018).
- ClimateScope (n.d.), "Egypt renewable energy feed-in tariff by tender", webpage, <http://global-climatescope.org/policies/4386> (accessed 7 January 2019).
- Dynamar (2018), "West Africa Container Trades (2018)", webpage, <https://www.dynamar.com/publications/207> (accessed 2 January 2019).
- EAC (2017), "Implementation of the Tripartite Transport and Transit Facilitation Programme Eastern and Southern Africa (TTTFP)", webpage, <https://www.eac.int/infrastructure/road-transport-sub-sector/ttftp> (accessed 2 January 2019).
- EIB (2018), "Financing Infrastructure in Africa", in *Banking in Africa: Delivering on Financial Inclusion, Supporting Financial Stability*, European Investment Bank, Luxembourg,

- [https://www.eib.org/attachments/efs/economic\\_report\\_banking\\_africa\\_2018\\_en.pdf](https://www.eib.org/attachments/efs/economic_report_banking_africa_2018_en.pdf).
- El-Houry, H. (29 October 2018), "Unlocking Africa's aviation potential", OECD Development Matters blog, <https://oecd-development-matters.org/2018/10/29/unlocking-africas-aviation-potential/>.
- ENGIE (2016), *Africa, a Major Challenge for ENGIE*, ENGIE, Paris, <https://www.engie.com/wp-content/uploads/2016/02/ENGIE-africa-brochure-en.pdf>.
- ENGIE (n.d.), "About ENGIE in Africa", webpage, <http://www.ENGIE-africa.com/en/about/> (accessed 13 December 2018).
- European Commission (2019), "Noor III: Tower plant of the Ouarzazate Solar Complex", webpage, [https://ec.europa.eu/europeaid/blending/noor-iii-tower-plant-ouarzazate-solar-complex\\_en](https://ec.europa.eu/europeaid/blending/noor-iii-tower-plant-ouarzazate-solar-complex_en) (accessed 2 January 2019).
- European Commission (2018), "The EU's External Investment Plan: First projects in Africa and the Neighbourhood", press release, 11 July, European Commission, [https://ec.europa.eu/europeaid/news-and-events/eus-external-investment-plan-first-projects-africa-and-neighbourhood\\_en](https://ec.europa.eu/europeaid/news-and-events/eus-external-investment-plan-first-projects-africa-and-neighbourhood_en) (accessed 7 January 2019).
- Falconer, A. and G. Frisari (2012), *San Giorgio Group Case Study: Ouarzazate I CSP*, Climate Policy Initiative, <https://climatepolicyinitiative.org/publication/san-giorgio-group-case-study-ouarzazate-i-csp/>.
- Foster, V. and C. Briceño-Garmendia (eds.) (2010), *Africa's Infrastructure: A Time for Transformation*, The International Bank for Reconstruction and Development/World Bank, Washington, DC, [https://siteresources.worldbank.org/INTAFRICA/Resources/aicd\\_overview\\_english\\_no-embargo.pdf](https://siteresources.worldbank.org/INTAFRICA/Resources/aicd_overview_english_no-embargo.pdf).
- Frankson, L. (2018), "Veolia Water Technologies reveals new 'ambitions for Africa'", 3 July, Infrastructure news, <http://www.infrastructurenews.com/2018/07/03/veolia-water-technologies-reveals-new-ambitions-for-africa/> (accessed 7 January 2019).
- Groupe ADP (2018), "ADP's feedbacks on African projects' financing", presentation at the EMnet Africa Meeting, Paris, 30 October 2018.
- Groupe ADP (2017), "Success stories in Africa, ongoing projects in Africa, focus on the Madagascar case", presentation at the Accra, Africa Air Show.
- IBM (2017), "IBM launches 'Digital - Nation Africa': Invests \$70 million to bring digital skills to Africa with free, Watson-powered skills platform for 25 million people", press release, 8 February, IBM, <https://www-03.ibm.com/press/us/en/pressrelease/51550.wss> (accessed 7 January 2019).
- ICA (2017), *Infrastructure Financing Trends in Africa – 2016*, The Infrastructure Consortium for Africa, Abidjan, [https://www.icafrica.org/fileadmin/documents/IFT\\_2016/Infrastructure\\_Financing\\_Trends\\_2016.pdf](https://www.icafrica.org/fileadmin/documents/IFT_2016/Infrastructure_Financing_Trends_2016.pdf).
- IEA (2018), *World Energy Outlook 2018*, IEA, Paris, <https://doi.org/10.1787/weo-2018-en>.
- IFC (2019), "Scaling solar", International Finance Corporation, [https://www.ifc.org/wps/wcm/connect/news\\_ext\\_content/ifc\\_external\\_corporate\\_site/news+and+events/news/scaling-solar](https://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/news/scaling-solar) (accessed 2 March 2019).
- ILO (2018), *World Employment and Social Outlook: Trends 2018*, International Labour Organization, Geneva, [www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms\\_615594.pdf](http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_615594.pdf).
- IMF (2018), *World Economic Outlook, July 2018* (database), [www.imf.org/external/pubs/ft/weo/2018/01/weodata/index.aspx](http://www.imf.org/external/pubs/ft/weo/2018/01/weodata/index.aspx).
- IRENA (2015), *Africa 2030: Roadmap for a Renewable Energy Future*, International Renewable Energy Agency, Abu Dhabi, [https://www.irena.org/DocumentDownloads/Publications/IRENA\\_Africa\\_2030\\_REmap\\_2015\\_low-res.pdf](https://www.irena.org/DocumentDownloads/Publications/IRENA_Africa_2030_REmap_2015_low-res.pdf).
- ITF (2017a), *Public Private Partnerships for Transport Infrastructure: Renegotiation and Economic Outcomes*, ITF Roundtable Reports, No. 161, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789282108130-en>.
- ITF (2017b), "Strategic Infrastructure Planning: International Best Practice", *International Transport Forum Policy Papers*, No. 29, OECD Publishing, Paris, <http://dx.doi.org/10.1787/4142787d-en>.

- Kacou, E. and H. El-Houry (2017), *Fly Africa: How Aviation Can Generate Prosperity Across the Continent*, Lioncrest Publishing.
- Klassa, A. (2018), "Morocco positions itself as more independent FDI portal to Africa", <https://www.ft.com/content/28187230-f970-11e8-a154-2b65ddf314e9> (accessed 7 January 2019).
- Meyerhoff, R. (2018), "How digital agriculture is helping Uganda grow its middle class", 1 March, SAP News Centre, [www.news.sap.com/2018/03/how-digital-agriculture-is-helping-uganda-grow-its-middle-class/](http://www.news.sap.com/2018/03/how-digital-agriculture-is-helping-uganda-grow-its-middle-class/) (accessed 2 January 2019).
- Mutula, S.M. and J. Mostert (2010), "Challenges and opportunities of e-government in South Africa", *The Electronic Library*, Vol. 28/1, Emerald Group Publishing, Bingley, pp. 38-53, <http://dx.doi.org/10.1108/02640471011023360>.
- Ministry of Foreign Affairs (n.d.), *G7 Ise-Shima Principles for Promoting Quality Infrastructure Investment Japan*, <https://www.mofa.go.jp/files/000196472.pdf>.
- National Computer Board (n.d.), "E-government Initiatives in Mauritius", webpage, [http://ictexport.govmu.org/English/ICT\\_in\\_Mauritius/E-Government/Pages/E-government-initiatives-in-Mauritius.aspx](http://ictexport.govmu.org/English/ICT_in_Mauritius/E-Government/Pages/E-government-initiatives-in-Mauritius.aspx) (accessed 23 October 2018).
- NEPAD/OECD (2009), "Deepening African financial markets for growth and investment", background paper for the Ministerial and Expert Roundtable of the NEPAD-OECD Africa Investment Initiative, <https://www.oecd.org/investment/investmentfordevelopment/43966839.pdf>.
- OECD (2018a), *Enhancing Connectivity through Transport Infrastructure: The Role of Official Development Finance and Private Investment*, The Development Dimension, OECD Publishing, Paris, <https://doi.org/10.1787/9789264304505-en>.
- OECD (2017), "Business Insights on Emerging Markets 2017", OECD Development Centre, Paris, <http://www.oecd.org/dev/oecdemnet.htm>.
- OECD (2016a), *Integrity Framework for Public Infrastructure*, OECD Publishing, Paris, <https://www.oecd.org/corruption/ethics/Integrity-Framework-For-Public-Infrastructure-Brochure.pdf>.
- OECD (2016b), *Integrity Framework for Public Investment*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264251762-en>.
- OECD (2015a), *Towards a Framework for the Governance of Infrastructure*, OECD Publishing, Paris, <https://www.oecd.org/gov/budgeting/Towards-a-Framework-for-the-Governance-of-Infrastructure.pdf>.
- OECD (2015b), *Stakeholder Engagement for Inclusive Water Governance*, OECD Studies on Water, OECD Publishing, Paris, <https://doi.org/10.1787/9789264231122-en>.
- OECD (2015c), *Policy Framework for Investment, 2015 Edition*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264208667-en>.
- OECD (2014a), *OECD Foreign Bribery Report: An Analysis of the Crime of Bribery of Foreign Public Officials*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264226616-en>.
- OECD (2014b), "Cloud Computing: The Concept, Impacts and the Role of Government Policy", *OECD Digital Economy Papers*, No. 240, OECD Publishing, Paris, <http://dx.doi.org/10.1787/5jxzf4lcc7f5-en>.
- OECD (2014c), *Recommendation of the Council on Digital Government Strategies*, OECD Publishing, Paris, <http://www.oecd.org/gov/digital-government/Recommendation-digital-government-strategies.pdf>.
- OECD (2013a), *Investing Together: Working Effectively across Levels of Government*, OECD Multi-level Governance Studies, OECD Publishing, Paris, <https://doi.org/10.1787/9789264197022-en>.
- OECD (2013b), *Renewable Energies in the Middle East and North Africa: Policies to Support Private Investment, Competitiveness and Private Sector Development*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264183704-en>.
- OECD (2012), *Recommendation of the Council on Principles for Public Governance of Public-Private Partnerships*, OECD Publishing, Paris, <https://www.oecd.org/governance/budgeting/PPP-Recommendation.pdf>.
- OECD/IEA (2017), *Energy Access Outlook 2017: From Poverty to Prosperity: World Energy Outlook Special Report*,

- OECD Publishing/International Energy Agency, Paris, [https://www.iea.org/publications/freepublications/publication/WEO2017SpecialReport\\_EnergyAccess\\_Outlook.pdf](https://www.iea.org/publications/freepublications/publication/WEO2017SpecialReport_EnergyAccess_Outlook.pdf).
- OECD/IEA (2014), *Africa Energy Outlook: A Focus on Energy Prospects in Sub-Saharan Africa: World Energy Outlook Special Report*, OECD Publishing/International Energy Agency, Paris, [www.iea.org/publications/freepublications/publication/WEO2014\\_AfricaEnergyOutlook.pdf](http://www.iea.org/publications/freepublications/publication/WEO2014_AfricaEnergyOutlook.pdf).
- Paris Airport (2017), "Ravinala Airports, the concession company for the Antananarivo and Nosy Be airports in Madagascar, formed by Groupe ADP, Bouygues Bâtiment International, Colas and Meridiam Africa, finalises its funding arrangements and begins work", press release, 5 July, Paris Airport, <https://www.parisaeroport.fr/docs/default-source/groupe-fichiers/presse/cp-juillet-septembre-2017/pr-05072017-funding-arrangements-madagascar-airports.pdf?sfvrsn=2> (accessed 14 December 2018).
- PPI Projects Database (2015), "2015 Sub-Saharan Africa (AFR) PPI Update", World Bank Group, Washington, DC, <https://ppi.worldbank.org/~media/GIAWB/PPI/Documents/Data-Notes/AFR-Update-2015.pdf>.
- PPIAF (2018), *Public-Private Infrastructure Advisory Facility Annual Report 2018*, Public-Private Infrastructure Advisory Facility, Washington, DC, <https://ppiaf.org/documents/5695/download>.
- Riley, P. (11 Sep 2018), "A digital platform to manage out-of-pocket health care expenses", Consultative Group to Assist the Poor blog, <http://www.cgap.org/blog/digital-platform-manage-out-pocket-health-care-expenses>.
- Saygili, M., R. Peters and C. Knebel (2018), "African Continental Free Trade Area: Challenges and opportunities of tariff reductions", *UNCTAD Research Paper*, No. 15, United Nations Conference on Trade and Development, Geneva, [http://unctad.org/en/PublicationsLibrary/ser-rp-2017d15\\_en.pdf](http://unctad.org/en/PublicationsLibrary/ser-rp-2017d15_en.pdf).
- Siemens Gamesa (2017), "Siemens Gamesa inaugurates the first blade plant in Africa and the Middle East", webpage, <https://www.siemensgamesa.com/en-int/newsroom/2017/10/siemens-gamesa-inaugurates-the-first-blade-plant-in-africa-and-the-middle-east> (accessed 7 January 2019).
- Sebuny, M. (2015), "Overcoming East Africa's infrastructure challenges", 1 July, International Trade Forum: The Quarterly Magazine of the International Trade Centre, <http://www.tradeforum.org/article/Overcoming-East-Africas-infrastructure-challenges/> (accessed 2 January 2019).
- Sobják, A. (2018), *Corruption Risks in Infrastructure Investments in Sub-Saharan Africa*, 2018 OECD Global Anti-Corruption & Integrity Forum, <https://www.oecd.org/corruption/integrity-forum/academic-papers/Sobjak.pdf>.
- South Africa Department of Energy (n.d.), "Renewable Energy Independent Power Producer Procurement (REIPPP) Programme", webpage, [http://www.energy.gov.za/files/events\\_overview%20IPPP.html](http://www.energy.gov.za/files/events_overview%20IPPP.html) (accessed 7 January 2019).
- Sow, M. (2018), "Figures of the week: Africa's intra- and extra-regional trade", 29 March, The Brookings Institution, <https://www.brookings.edu/blog/africa-in-focus/2018/03/29/figures-of-the-week-africas-intra-and-extra-regional-trade/> (accessed 2 January 2019).
- Spiess, W. and F. Felding (2008), "Parties, roles and interests in international projects", in *Conflict Prevention in Project Management: Strategies, Methods, Checklists and Case Studies*, Springer, <https://www.springer.com/fr/book/9783540774365>.
- SUEZ (2018), "SUEZ expands its presence in Africa with the signature of four new contracts", press release, 24 July, SUEZ, <https://www.suez.com/en/News/Press-Releases/SUEZ-expands-its-presence-in-Africa-with-the-signature-of-four-new-contracts> (accessed 2 January 2019).
- Tsui, B. (2016), "Do Huawei's training programs and centers transfer skills to Africa?", *Policy Brief*, No. 14, China-Africa Research Initiative at the Johns Hopkins University School of Advanced International Studies, Washington, DC, <https://static1.squarespace.com/static/5652847de4b033f56d2bdc29/t/578e94e83e00be65954feb3f/1468962026573/Tsui+brief+v.5.pdf>.
- Uber (n.d.), "Partner injury protection: Accident insurance from Chubb Insurance", webpage, <https://www.uber.com/en-ZA/drive/insurance/> (accessed 7 January 2019).
- UN (n.d.), *UN Comtrade Database* (database), <https://comtrade.un.org/>

- UN/CEFACT (2016), "Case studies on implementing a single window to enhance the efficient exchange of information between trade and government", working draft, United Nations Centre for Trade Facilitation and Electronic Business, Geneva, [https://www.unece.org/fileadmin/DAM/cefact/single\\_window/draft\\_160905.pdf](https://www.unece.org/fileadmin/DAM/cefact/single_window/draft_160905.pdf).
- UNCTAD (2018a), "The African Continental Free Trade Area: The day after the Kigali Summit", *Policy Brief*, No. 67, United Nations Conference on Trade and Development, Geneva, [http://unctad.org/en/PublicationsLibrary/presspb2018d4\\_en.pdf](http://unctad.org/en/PublicationsLibrary/presspb2018d4_en.pdf).
- UNCTAD (2018b), *World Investment Report 2018: Investment and New Industrial Policies*, United Nations Conference on Trade and Development, Geneva, [http://unctad.org/en/PublicationsLibrary/wir2018\\_en.pdf](http://unctad.org/en/PublicationsLibrary/wir2018_en.pdf).
- UNCTAD (2017), *From Regional Economic Communities to a Continental Free Trade Area: Strategic Tools to Assist Negotiators and Agricultural Policy Design in Africa*, United Nations Conference on Trade and Development, Geneva, [http://unctad.org/en/PublicationsLibrary/webditc2017d1\\_en.pdf](http://unctad.org/en/PublicationsLibrary/webditc2017d1_en.pdf).
- UNCTAD (2015), *Economic Development in Africa Report 2015: Unlocking the Potential of Africa's Services Trade for Growth and Development*, United Nations Conference on Trade and Development, Geneva, [http://unctad.org/en/PublicationsLibrary/aldcafrica2015\\_en.pdf](http://unctad.org/en/PublicationsLibrary/aldcafrica2015_en.pdf).
- UNCTAD (2014), *Hard and Soft Infrastructure Development in Africa*, United Nations Conference on Trade and Development, Geneva.
- UNDESA (2018), *2018 Revision of World Urbanization Prospects* (database), <https://esa.un.org/unpd/wup/>.
- UNECA (2018a), "African Continental Free Trade Area – Questions & Answers", United Nations Economic Commission for Africa, Addis Ababa, [https://www.uneca.org/sites/default/files/PublicationFiles/qa\\_cfta\\_en\\_230418.pdf](https://www.uneca.org/sites/default/files/PublicationFiles/qa_cfta_en_230418.pdf).
- UNECA (2018b), "Vera Songwe advocates AfCFTA, digital identity, investment opportunities and strengthened partnerships at UNGA side events", press release, 1 October, United Nations Economic Commission for Africa, <https://www.uneca.org/stories/vera-songwe-advocates-afcfta-digital-identity-investment-opportunities-and-strengthened> (accessed 7 January 2019).
- UNECA (2017a), "Innovations and infrastructure development for sustainable industrialization in Africa", *ECA Policy Brief*, No. ECA/17/108, United Nations Economic Commission for Africa, Addis Ababa, <https://www.uneca.org/publications/innovations-and-infrastructure-development-sustainable-industrialization-africa>.
- UNECA (2017b), *16 Infrastructure Projects for African Integration*, United Nations Economic Commission for Africa, Addis Ababa, <https://repository.uneca.org/handle/10855/23964>.
- UNECA/AUC/AfDB (2017), *Assessing Regional Integration in Africa VIII: Bringing the Continental Free Trade Area About*, United Nations Economic Commission for Africa/African Union/African Development Bank, Addis Ababa, <https://www.uneca.org/publications/assessing-regional-integration-africa-viii>.
- UN-Habitat (2014), *The State of African Cities 2014: Re-imagining Sustainable Urban Transitions*, United Nations Human Settlements Programme, Nairobi, <http://mirror.unhabitat.org/pmss/getElectronicVersion.aspx?nr=3528&alt=1>.
- Veolia (2017), "Veolia signs landmark B-BBEE deal with Ceracure", press release, 31 July, Veolia, [http://www.veoliawatertechnologies.co.za/news-media/news/2017-07-31\\_Ceracure-Veolia-Partnership.htm](http://www.veoliawatertechnologies.co.za/news-media/news/2017-07-31_Ceracure-Veolia-Partnership.htm) (accessed 4 January 2019).
- World Bank (2018), *Africa's Pulse, Spring 2018: Analysis of Issues Shaping Africa's Economic Future (April)*, World Bank, Washington, DC, <http://documents.worldbank.org/curated/en/292931523967410313/Africas-pulse>.
- World Bank (2015), "Off to slow start: Severe storms hamper economic recovery", press release, 24 June, World Bank, <http://www.worldbank.org/en/country/madagascar/publication/madagascar-economic-update-off-to-slow-start-severe-storms-hamper-economic-recovery> (accessed 2 January 2019).
- World Bank (2014), "Expansion of Morocco's largest solar complex to provide 1.1 million Moroccans with clean energy", press release, 30 September, World Bank, <http://www.worldbank.org/en/news/press-release/2014/09/30/expansion-morocco-solar-complex-clean-energy> (accessed 2 January 2019).

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

[dev.emnet@oecd.org](mailto:dev.emnet@oecd.org)

[www.oecd.org/dev/oecdemnet.htm](http://www.oecd.org/dev/oecdemnet.htm)

**EM»net**  
OECD EMERGING MARKETS NETWORK



**JOHNSON**  
Cornell University  
Emerging Markets Institute