

WORLD BANK MIDDLE EAST AND NORTH AFRICA REGION

MENA ECONOMIC MONITOR

A NEW ECONOMY

FOR THE MIDDLE EAST AND NORTH AFRICA

MIDDLE EAST AND NORTH AFRICA REGION
MENA Economic Monitor

A New Economy for the Middle East and North Africa

October 2018

World Bank Group

© 2019 International Bank for Reconstruction and Development / The World Bank
1818 H Street NW, Washington, DC 20433
Telephone: 202-473-1000; Internet: www.worldbank.org

Some rights reserved

1 2 3 4 22 21 20 19

This work is a product of the staff of The World Bank with external contributions. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of The World Bank, its Board of Executive Directors, or the governments they represent. The World Bank does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Nothing herein shall constitute or be considered to be a limitation upon or waiver of the privileges and immunities of The World Bank, all of which are specifically reserved.

Rights and Permissions



This work is available under the Creative Commons Attribution 3.0 IGO license (CC BY 3.0 IGO) <http://creativecommons.org/licenses/by/3.0/igo>. Under the Creative Commons Attribution license, you are free to copy, distribute, transmit, and adapt this work, including for commercial purposes, under the following conditions:

Attribution—Please cite the work as follows: Rabah Arezki, Lili Mottaghi, Andrea Barone, Rachel Yuting Fan, Amani Abou Harb, Omer M. Karasapan, Hideki Matsunaga, Ha Nguyen, and Francois de Soyres. 2018. “A New Economy in Middle East and North Africa” *Middle East and North Africa Economic Monitor* (October), World Bank, Washington, DC. Doi: 10.1596/978-1-4648-1366-5. License: Creative Commons Attribution CC BY 3.0 IGO

Translations—If you create a translation of this work, please add the following disclaimer along with the attribution: *This translation was not created by The World Bank and should not be considered an official World Bank translation. The World Bank shall not be liable for any content or error in this translation.*

Adaptations—If you create an adaptation of this work, please add the following disclaimer along with the attribution: *This is an adaptation of an original work by The World Bank. Views and opinions expressed in the adaptation are the sole responsibility of the author or authors of the adaptation and are not endorsed by The World Bank.*

Third-party content—The World Bank does not necessarily own each component of the content contained within the work. The World Bank therefore does not warrant that the use of any third-party-owned individual component or part contained in the work will not infringe on the rights of those third parties. The risk of claims resulting from such infringement rests solely with you. If you wish to re-use a component of the work, it is your responsibility to determine whether permission is needed for that re-use and to obtain permission from the copyright owner. Examples of components can include, but are not limited to, tables, figures, or images.

All queries on rights and licenses should be addressed to World Bank Publications, The World Bank Group, 1818 H Street NW, Washington, DC 20433, USA; e-mail: pubrights@worldbank.org.

ISBN (electronic): 978-1-4648-1367-2
DOI: 10.1596/ 978-1-4648-1367-2

Contents

Acknowledgements	iv
Abbreviations	v
Summary	1
Part I. A New Economy for the Middle East and North Africa	3
Chapter 1. The “New Economy”: An Agenda for Youth and Women Economic Empowerment	5
Chapter 2. The Middle East “Middle Income Trap”	27
Chapter 3. Laying the Foundations for the New Economy: A Moonshot Approach	39
Chapter 4. Internet in the Middle East and North Africa	45
Chapter 5. Rekindling the Role of State in the Middle East and North Africa	55
Part II. Recent Economic Developments and Outlook	69
Chapter 1. Global Developments	71
Chapter 2. Middle East and North Africa	75
 List of Boxes	
Box I.1 Harnessing Arab Women’s Digital Skills to Lead in a Fourth Industrial Economy	8
Box I.2 Digital Disruption of Agriculture in the Middle East and North Africa	11
Box I.3 Using Technology in Fragile and Conflict Settings	14
Box I.4 M-PESA: Kenya’s Successful Move to Mobile Money	17
Box I.5 The Middle East Middle-Income Trap: Some Empirical Evidence	29
Box I.6 Digital Disruption of Financial Services in the Middle East and North Africa	42
Box I.7 Rethinking Social Protection in the Middle East and North Africa	58
Box I.8 The Promise of GovTech: How Digital Transformation Can Improve Governance	61
Box I.9 Digital Solutions in Public Procurement	63
Box I.10 Regulating Tech Giants	66

Box II.1 The Impact of the U.S. Sanctions on the Iranian Economy	83
Box II.2 Rising Oil Prices and the Fate of Subsidy Reforms in MENA	84
Box II.3 The Impact of Rising U.S. Interest Rates on MENA Economies	85
Box II.4 Economic Linkages between Turkey and MENA countries	86

List of Figures

Figure I.1 Highly educated female population in MENA	20
Figure I.2 Educated but unemployed	24
Figure I.3. Middle-income trap	29
Figure I.4 Predicted growth of income by region	31
Figure I.5 Projected dynamics of labor market	33
Figure I.6 The brain-drain	38
Figure I.7 Mobile broadband in MENA	46
Figure I.8 Fixed broadband in MENA	47
Figure I.9 Fixed broadband download	48
Figure I.10 Submarine networks around MENA	48
Figure I.11 Land-based networks in the Mashreq	49
Figure I.12 Technology readiness in MENA	53
Figure II.1 Global growth outlook	71
Figure II.2 Developments in the international markets	72
Figure II.3 Developments in oil prices	73
Figure II.4 Economic outlook and challenges in MENA	76
Figure II.5 Foreign inflows in MENA	77
Figure II.6 Economic linkages with Turkey	86

List of Tables

Table I.1 Status of telecom incumbents in MENA	49
Table II.1 MENA Macroeconomic Outlook, 2016 –2020	79

Acknowledgements

The MENA Economic Monitor is a product of the World Bank Office of the Chief Economist, Middle East and North Africa Region, led by Rabah Arezki, in collaboration with colleagues from various parts of the World Bank.

Chapter 1 of Part I is based on work done by Rabah Arezki and Hafez Ghanem, chapter 2 by Rabah Arezki and Ferid Belhaj, chapter 3 by Rabah Arezki and Hafez Ghanem, chapter 4 by Carlo Maria Rossotto, and chapter 5 by Rabah Arezki and Mahmoud Mohieldin. Part II was prepared by Lili Mottaghi, Ha Nguyen, and Amani Abou Harb.

Box I.1 was prepared by Fawah Ngeniform Akwo and Samantha M. Constant; Box I.2 by Eva Hasiner; Box I.3 by Omer M. Karasapan, Hideki Matsunaga, and Francois de Soyres; Box I.4 by Caroline Cerruti and Leah Kiwara; Box I.5 by Rachel Yuting Fan and Ha Nguyen; Box I.6 by Nadine Chehade and Peter McConaghy; Box I.7 by Hana Brix, Gustavo Demarco, Johannes Koettl, Cristobal Ridao-Cano, and Ruslan Yemtsov; Box I.8 by Kimberly D. Johns, Ismail Radwan, and Paul Welton; Box I.9 by Nora Mc Gann and Yolanda Tayler; and Box I.10 by Andrea Barone.

James Lester Rowe Jr edited the report. Isabelle Chaal-Dabi and Amani Abou Harb oversaw the layout of the report. Isabelle Chaal-Dabi provided administrative support. Cover design by Gregory Thomas Wlosinski.

Abbreviations

AI	Artificial Intelligence
Bbl	Barrel
BIS	Bank for International Settlements
bln	billion
CBK	Central Bank of Kenya
CMS	Case Management Systems
CSIS	Center for Strategic and International Studies
EAP	East Asia and Pacific
ECA	Europe and Central Asia
E-GP	e-Government Procurement
FCV	Fragile, Conflict and Violence
FDI	Foreign Direct Investment
Fed	Federal Reserve
FTTH	fiber to the home
GAFSF	Global Agriculture & Food Security Program
G2P	Government to Person
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GSMA	GSM Association
ICT	Information, Communications, and Technology
IDP	internally displaced peoples
ILO	International Labour Organization
IMF	International Monetary Fund
ISPs	Internet Service Providers
IT	Information Technology
ITU	International Telecommunication Union
KES	Kenyan Shillings
LAC	Latin America and the Caribbean
MENA	Middle East and North Africa
NIOC	National Iranian Oil Company
ODA	Official Development Assistance
OEC	MENA Oil exporting countries excl. GCC countries
OECD	Organization for Economic Co-Operation and Development
OIC	MENA Oil importing countries
OPEC	Organization of Petroleum Exporting Countries
SDGs	Sustainable Development Goals
SMEs	Small and Medium Enterprises
SOE	State-Owned Enterprise
STEM	Science, Technology, Engineering, and Mathematics
TFP	Total Factor Productivity
UAE	United Arab Emirates
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations International Children's Emergency Fund
UNWTO	United Nations World Tourism Organization

US
WEF
WITS

United States
World Economic Forum
World Integrated Trade Solutions

Summary

Countries in the Middle East and North Africa possess all the ingredients they need to leapfrog into the digital future. Their well-educated youth have already adopted new digital and mobile technologies, but, this is still in its infancy, and young people in MENA face obstacles in putting technology to productive use. The challenge now is to create the conditions for these green shoots to grow and multiply. The key is for MENA countries to become “learning societies,” which could lead to the creation of a vibrant digital service economy. Seizing the opportunities that the digital economy offers the MENA region will require a big push. Policymakers will need to work on multiple fronts, while making the best use of all available tools. The sooner they start, the greater the chance that today’s young people can overcome economic exclusion and gain more opportunities to realize their—and their region’s—full potential.

To accelerate growth and create jobs for millions of unemployed youth, MENA countries cannot hope to pursue the traditional development path of reliance on manufacturing exports. Instead, they will have to develop a digital economy that takes advantage of its young and educated workforces. This will require, first and foremost, the adoption of new technologies and even the provision of “digital public goods” like fast and reliable broadband internet and digital payment solutions. This report lays out the principles for a new digital economy for MENA that embraces innovation and entrepreneurship.

In 2018, economic growth in the Middle East and North Africa (MENA) region is expected to rebound to an average 2.0 percent from an average 1.4 percent in 2017. While overall growth appears robust, the pace of the economic recovery in the region is still sluggish. Challenges—including the slow pace of reforms, a temptation to return to pro-cyclical fiscal policies in the wake of higher oil prices, rising debt levels, and high unemployment rates among youth and women—still exist and, if not addressed, could deter economic recovery and hamper long-term growth prospects in the region. The mild rebound in regional growth reflects the positive impact of reforms and stabilization policies undertaken in many countries in tandem with the recent pick up in oil prices and external oil demand. Economic growth in the MENA region is forecast to improve modestly, reaching an average of 2.6 percent in 2019-2020. Oil exporters will significantly benefit from oil prices and external oil demand that will likely remain high, as well as domestic reforms. Oil importers are expected to benefit from reforms, rising trade with Europe and China, and financial inflows from MENA oil exporters.

Part I.

A New Economy for the Middle East and North Africa

Chapter 1.

The “New Economy”: An Agenda for Youth and Women Economic Empowerment

Countries in the Middle East and North Africa (MENA) possess all of the ingredients they need to leapfrog into the digital future. They have large, well-educated youth populations that have already adopted new digital and mobile technologies on a wide scale. They have a highly educated female population (see Box I.1). That combination has immense potential to drive future growth and job creation. The question is whether the region can adapt to a new economic reality.

Public spending, the region’s historical engine of development, has reached its limit. Because the public sector can no longer absorb the swelling ranks of university graduates, the MENA region now has one of the world’s highest rates of youth unemployment. For a variety of reasons, many of them cultural, highly educated women stay home. The female labor participation rate is among the lowest in the world.

The digital economy holds the promise of a new way forward, but it is still in its infancy, and young people face obstacles in putting technology to productive use. Although the internet and hand-held devices are ubiquitous throughout the region, they are currently used for accessing social media, rather than for launching new enterprises.

But there are green shoots emerging. For example, the ride-hailing app Careem has grown from a start-up to a billion-dollar company, creating thousands of jobs in 80 cities in the MENA region and in Pakistan and Turkey. And new digital platforms are already connecting job seekers and employers, providing vocational training, and hosting start-up incubators. The challenge now is to create the conditions for these green shoots to grow and multiply.

The first, essential step is for MENA countries to become “learning societies,” a phrase coined by the Nobel laureate economist Joseph E. Stiglitz to describe countries in which shared knowledge leads to increased innovation. This, in turn, fosters development; and in the case of MENA, it could lead to the creation of a vibrant digital service economy.

To get there, education systems will need to change. For the region’s young people, the curriculum is more often a source of frustration than advancement. The concept of a “skills premium”—the difference in wages between skilled and unskilled workers—dictates that higher

educational attainment should lead to higher compensation and more secure employment. Yet in the MENA region, the opposite has happened: university graduates are far more likely to be unemployed than are workers with only a basic education.

Two factors work against the region's young people. First, schools are still geared toward channeling graduates into large public sectors, which means they place less emphasis on fields such as mathematics and science. Second, bloated public sectors are crowding out the private sector, which would otherwise be a larger provider of high-skill, high-wage jobs.

Because the future economy will need technologically capable workers, curricula should be reoriented toward STEM (science, technology, engineering, and mathematics) subjects and away from the social studies that were long prized by public-sector employers.

Moreover, education systems should focus on encouraging greater openness to innovation and risk-taking—a significant departure from the attitudes reproduced under a system of public-sector patronage. Specifically, moving toward an innovative “learning society” will require students to hone their critical-thinking and managerial skills within collaborative work arrangements.

In addition to skills, the digital economy will also need technical infrastructure. Connectivity is a prerequisite for the delivery of new mobile and digital services in e-commerce, vocational training, health care, and finance, all of which could substantially increase overall welfare. Countries in the region thus need to focus on expanding broadband Internet access.

Education and Internet infrastructure geared toward productive use would provide the foundation of a new economy.

The region can also use digital technology to improve its agricultural output (see Box I.2) and those affected by conflict and violence—including refugees and internally displaced peoples—can also have their horrific situations eased somewhat by new technological developments (see Box I.3)

Ensuring sustained growth in the region will require improving its financial systems as well. A digital economy depends on payment systems that are not just easy to use and widely available, but also trustworthy. Developing effective peer-to-peer payments, such as Kenya's [M-PESA](#) system (see Box I.4)—that require no financial intermediary like a bank—will be crucial for ensuring that digital platforms for ride sharing, on-demand tasks, and other services can thrive.

Outside of the Gulf Cooperation Council countries, which have relatively advanced payment systems, the quality of financial services in the MENA region currently lags most of the rest of the world. Barring improvements to the financial system, and to the banking sector in particular, the potential of the region's vast human capital will not be realized.

Lastly, governments will need to develop an approach to regulation that encourages, rather than stifles, innovation. To be sure, ensuring confidence, especially in financial systems, is essential; but regulation must be balanced with policies to boost competition, so that startups can easily enter the market and test new ideas. There needs to be more space for more companies like Careem to emerge. Policymakers should look to Kenya's model of light but effective regulation, which has fostered the rapid growth of M-PESA.

Seizing the opportunities that the digital economy offers the MENA region will require a big push. Policymakers will need to work on multiple fronts, while making the best use of all available tools. The sooner they start, the greater the chance that today's young people can overcome economic exclusion and gain more opportunities to realize their—and their region's—full potential.

Box I.1 Harnessing Arab Women's Digital Skills to Lead in A Fourth Industrial Economy

Around the world, digitization is disrupting existing markets and industries, causing rapid and fundamental transformations in the way people live and behave. Central to this digital disruption and transformation is the prospect of smarter and more inclusive economies linked through a global network of information, communications, and technology (ICT). In the Middle East and North Africa (MENA) this so-called Fourth Industrial Revolution is an opportunity to engage more women not only in the ICT and broader technology sectors, but also in other markets and industries where they are largely inactive. Digital technologies can also enhance women's voice and agency by providing interactive channels for them to participate in public discussions and voice their opinions.

Harnessing an increasingly sophisticated and technological new economy in the MENA region will require a workforce with a stronger set of skills in science, technology, engineering, and mathematics (STEM) than now exists. This shortfall can be filled by attracting more women into the technology industry, where they account for just 24 per cent of the global ICT workforce, according to a World Economic Forum report. It has been estimated that increasing women's participation in the workforce could add \$2.7 trillion to MENA's regional GDP by 2025. MENA could likely gain significantly by closing the gender gap in the technology industry and those affected by technology—that is, virtually every industry.

In Arab countries, female college students on average outnumber male students and the countries have the highest proportion of female STEM graduates in the world. UNESCO estimates that some 34 to 57 per cent of STEM graduates in Arab countries are women—significantly higher than in the United States or Europe. Yet the region also has the lowest rates of female labor force participation, which means this trove of women's STEM skills is untapped and underutilized. Many female graduates stay at home because of widespread disapproval of women in the workforce. For example, up to 75 percent of men and 50 percent or more of women in Egypt, Lebanon, West Bank and Gaza, and Morocco believe that a woman's most important role is to care for the household (Promundo and UN Women 2017). As a result, despite their high educational attainment, Arab women represent only 21 percent of the MENA labor force, well below all other regions with an equivalent level of economic development (World Bank 2017).

Like those working in other sectors, women in the technology industry have difficulty finding affordable child and dependent care and confront unequal wages and employer discrimination (World Bank 2017). Restrictive norms that govern societal expectations around mixed work environments also impact their employment decisions, as do issues around mobility and safe transport to work. Arab women also cite lack of access to finance and long-term support when starting businesses, as well as the need for a more family-friendly business regulatory environment (World Bank 2018). Women are expected to be responsible for childcare, so it is still common for women to stop working when they marry or have children. Women in the technology industry have the added pressure of working in a field dominated by men.

The technology sector could ease some workforce participation barriers for MENA women by making work arrangements more flexible, connecting women to work, and generating new opportunities in online work, e-commerce, and the sharing economy (WDR 2016). Instead, gender gaps in technology access and use are vast in many MENA countries, impeding a full-scale leveraging of digital technologies to economically empower women.

Box I.1 *(continued)*

More than half of households in Arab states do not have internet access at home (ITU 2017) and internet use is higher for men (47.7 percent) than it is for women (39.4 percent). Gender gaps in mobile phone access and use also are large. In MENA, 48 percent of women do not own a mobile phone, 8 percentage points lower than men. This gap varies from country to country, from almost non-existent in Egypt to 21 percentage points in Jordan. Women in these countries face common constraints in ownership and productive use of mobile device. They list cost, network quality and coverage, security and harassment, lack of agent and operator trust, as well as lack of technical literacy and confidence as key barriers. Underlying social norms, such as women's lower financial autonomy and decision-making power, also limit their access to and use of mobile technologies. Studies show that because new technologies offer the opportunity for women to engage in public forums from which they have traditionally been excluded, attitudes toward internet media usage remain restrictive. In Egypt, for example, 12 percent of women stated that they did not access the internet more often because they deemed it inappropriate, and more than 8 percent did not access it more often because of concerns that family or friends would disapprove (GSMA 2015).

With a Fourth Industrial Revolution that stands to ease household work, it is increasingly vital to close digital gender gaps (the percentage difference between male and female online presence) and encourage Arab women with STEM skills to participate in the formal economy. Public sector interventions—including promoting digital literacy skills and confidence for girls and women—are vital to bridging the digital gender gap, which is 17.3 percent for Arab countries (ITU 2017). In so doing, MENA countries could unlock the transformative power of digital technologies for a vibrant new economy. Digital transformation promises to automate household chores, relieving women of their dual burdens of formal work and child care, and potentially reshape the division of labor at home (WEF 2016). To encourage women, particularly STEM graduates, to participate in the workforce, MENA countries can systematically start to deploy strategies that promote flexible work patterns: lifting restrictive laws, improving women's access to finance, and promoting more gender-balanced workplaces.

Women entrepreneurs in the MENA region already are demonstrating the potential for regional transformation and leadership in the Fourth Industrial Revolution. One in three startups in MENA are either founded or led by women, even though women-owned startups receive 23 percent less in funding than male-owned ones (Ommundsen and Kteily 2018; OECD 2018). Across the region, female-led businesses are hiring more workers than their male-led counterparts and hire more women to fill leadership positions. Additionally, venture capital firms with one or more female partners are twice as likely to invest in startups with women in the management team and three times more likely to invest in firms with female CEOs. These figures show that the promise of women's participation in MENA's new Fourth Industrial Economy and the rapidly changing world of work can be made possible in large part through the opportunities created by other women leaders and entrepreneurs in the region.

Box I.1 *(continued)*

References

GSMA (2015). Bridging the Gender Gap: Mobile Access and Usage in Low- and Middle-income Countries.

ITU (2017). ICT Facts and Figures 2017.

Artley, J. How to be a leader in the Fourth Industrial Revolution (World Economic Forum 2018).

OECD (2018). Empowering Women in the Digital Age: Where Do We Stand?

Ommundsen, K. and Khaled, K. (2018). How women are transforming the Arab World's Startup Scene. World Economic Forum.

Promundo and UN Women (2017). Understanding Masculinities. Results from the International Men and Gender Equality Survey Middle East and North Africa.

World Bank (2017). Progress towards Gender Equality in the Middle East and North Africa Region.

World Bank (2016). World Development Report 2016: Digital Dividends.

World Bank (2018). Why Aren't More Lebanese Women Working?

World Economic Forum (2016). The Industry Gender Gap: Women and Work in the Fourth Industrial Revolution.

Box I.2. Digital Disruption of Agriculture in the Middle East and North Africa

From the introduction of the ox-drawn plow during Neolithic times to the first gasoline-powered general-purpose tractor in 1901 to the Green Revolution's deployment of hybrids, chemical fertilizers, and pesticides in the 1970s, technology has spurred productivity growth in agriculture. Increasing productivity of land and labor has resulted in a significant decline of poverty rates in rural areas over the past decades (Timmer 2009). Still, 80 percent of the world's poor and 70 percent of impoverished people in the Middle East and North Africa live in rural areas (Castaneda and others 2016; GAFSP 2014).

Increasingly, new on- and off-farm, low-cost, data-intensive technology applications are being used with potentially big benefits to agriculture. On the farm, such innovations as self-driving tractors and subcutaneous implants that monitor livestock health enhance farm productivity. But the potential benefits of the new agriculture apps apply to all areas of the food chain—on the farm or off it. The food production system is complex, involving many actors exchanging vast amounts of information. Matching farmers with consumers is difficult as is pairing them with upstream companies, such as fertilizer and seed firms, and downstream enterprises such as food processors. Yet, digital technology can substantially reduce the costs of matching buyers and sellers—not to mention the costs from market failures that pervade the agriculture-food system, such as market power, information asymmetries, and transaction costs. We see these technologies thrive globally and although the MENA region could reap benefits from the new technology, adoption there is slow.

Public Sector Role

To ensure an efficient, equitable and environmentally sustainable distribution of digital dividends from agricultural transformation in the MENA region, the public sector must play a role in identifying public goods, policies, and investments. MENA governments should create incentives for the private sector to develop and supply digital technologies, facilitate adoption of these technologies by farmers, mitigate downside risks, and design a framework governing agricultural data ownership and transfer. Special focus should be put on generating and disseminating data that both encourage innovation and competition and reduce opportunities for market capture.

Farmers in the MENA region often lack access to much needed physical capital or extension services, in which government agents deliver best practices information to farmers. Access to key forms of physical capital (tractors, irrigation equipment) is essential to growth in agricultural productivity. Digital technologies redefine the way farmers access physical capital: farmers can seamlessly rent machines that they previously had to buy or could not access at all. In Nigeria, Ghana and Kenya Hello Tractor connects tractor owners with smallholder farmers in need of tractor services through text messages. Furthermore, extension services can impart new skills to farmers that enhance labor and land productivity. But provision of extension services is often inadequate and fails to respond to farmers' changing needs in the region. Digital platforms such as Digital Green or Plantix can dramatically increase agricultural productivity by making it easier for farmer to learn new skills. Digital Green facilitates the production and dissemination of videos of good agricultural practices presented by farmers. Plantix provides a diagnostic and monitoring tool that allows users to share pictures of sick plants, uses the pictures to identify disease, pests and/or nutrient deficiencies and sends the information back to the farmer. These technologies directly affect help productivity and can create employment possibilities along the food value chain.

Box I.2. (continued)

Improved Resource Management

Water is being depleted at an alarming rate in MENA countries, a situation that only stands to get worse because of climate change. Water depletion casts a long shadow on the long-term prospects of agriculture and its ability to respond to future demand for food, feed, and fiber. Precision technologies such as irrigation systems offer the hope that natural capital can be used more efficiently and reduce pollution. In Israel, Tevatronic developed a fully autonomous irrigation system that aims to increase yield and optimize water usage and can be directly controlled via a web-based interface. However, the efficiency gains of such precision farming will only occur if the resources such as water are priced properly. Otherwise MENA won't be able to make the most of its scarce water, the way Israel has.

Great potential off the farm

While market power arises in upstream, midstream and downstream markets, digital platforms may spur competition in all of them and drive down prices. In Ghana, Esoko uses text messages and phone calls to provide information on market prices, which can change demand—and subsequently prices. Furthermore, digital technologies can reduce information asymmetries between farmers and consumers as well as between farmers and banks. Promising agri-food start-ups can receive loans from commercial banks as digital technologies are quickly generating information on the ability of farms or agri-firms to repay their loans. In Kenya, FarmDrive develops alternative credit scores using mobile phones, alternative data, and machine learning to fill data gaps. The enhanced credit scores permit banks to gain enough information to enable them to lend to smallholder farmers whom they otherwise would have denied. Also, digital tools offer the possibility to aggregate producers spread over a large geographic area in a seamless and flexible way and therefore reduce transaction costs. Aggregated action may change how benefits are shared between producers and buyers. Correcting market failures has substantial implications for MENA's public sector. An equitable sharing of digital dividends might allow governments to reduce farmer and consumer subsidies and lift burdensome price controls. Experience shows that population density is crucial to successful launching of electronic platforms and the densely populated MENA region is poised to capitalize on this opportunity.

Tech savvy youth

The region has a young population—30 percent are between 15 and 29. While the region's youth unemployment rate—between 28.2 and 30.5 percent—is the highest in the world, the agriculture sector has an ageing labor force in dire need of replenishment (ILO, 2014). Agriculture digital technologies represent exceptional opportunities for MENA's youth and can make the sector more attractive. Furthermore, there is a flourishing tech industry in the region—although differences exist between countries—and a rising penetration of smartphones (McKinsey, 2016). While the region is already facing mounting pressure on its scarce water resources due to mismanagement and climate change, a young population and a rising tech-industry present new, unexpected opportunities for the agriculture sector in the region.

Box I.2. *(continued)*

References

Castaneda, A., Doan, D., Newhouse, D., Nguyen, M.C., Uematsu, H., Azevedo, J.P. (2016). Who are the Poor in the Developing World? World Bank Policy Research Working Paper 8744.

GAFSP (2014). Reducing hunger, Increasing Incomes. GAFSP Annual Report, Washington, DC.

ILO (2014). Global Employment Trends for Youth 2015. Scaling up Investments in Decent Jobs for Youth. International Labor Office, Geneva.

McKinsey (2016). Digital Middle East: Transforming the Region into a Leading Digital Economy.

Timmer, P. (2009). A World without Agriculture: The Structural Transformation in Historical Perspective. American Enterprise Institute, No. 43120, Washington, D.C.

Box I.3 Using Technology in Fragile and Conflict Settings

In fragile, conflict and violence (FCV) countries, the challenges of implementing disruptive technologies, such as biometrics and blockchain, are far greater than in the rest of the world.

Lack of reliable infrastructure in FCV countries is a major impediment. In many post-conflict and in-conflict countries, internet coverage is unreliable and the level of applied technology badly lags the rest of the world—often because of the impossibility of transmitting large amounts of data. An irregular electricity supply makes matters worse. Still, newer technologies and innovative use of existing resources can overcome many of these barriers.

Indeed, some of the most ingenious uses of technologies in solving challenges in FCV settings can be seen in the context of the worst forced-displacement crisis since World War II. Globally, 66 million people have been forcibly displaced— 26 million fleeing their countries as refugees and 40 million internally¹. The Middle East is among the most affected regions— having to absorb 6 million Syrian refugees. Another million have sought asylum in Europe. There are also millions of internally displaced peoples (IDPs) in Syria (6.3 million), Iraq (5.4 million), Yemen (2 million), and Libya (more than 300,000).

This massive movement of people has major economic effects. There is government, humanitarian, and development fund spending, money flows from refugees and illicit trafficking of everything from people to goods. As in all economic activity these days, technology plays a growing role and indeed a rather specific “eco-system” is developing new technologies for specific FCV challenges.

For example, advances in biometric identification and blockchain technology can help tackle some pressing challenges, such as food and supply distribution in affected areas. Already, the World Food Program, in partnership with the United Nations High Commissioner for Refugees (UNHCR), has introduced an innovative iris scan payment system in Jordan’s Zaatari refugee camp, allowing 75,000 Syrian refugees to purchase food from camp supermarkets using a scan of their eye instead of cash, vouchers, or e-cards. Meanwhile, blockchain can be used to enhance the efficiency and effectiveness of cash transfers, reducing costs and better protecting beneficiary data while controlling financial risks. Some organizations are studying how blockchain technology can be harnessed for digital identity management of cross-border movements of displaced people.

Cheaper mobile phones (including smart ones), internet access, social media, and innumerable apps means that connectivity is increasingly indispensable. According to Mercy Corps: “This is not to say conventional aid like food, water, and medicine isn’t still vital — it is. It just so happens that in this crisis, in particular, technology and information are a powerful and effective means of providing it.”

Keeping track of every relevant app and digital technology is nearly impossible, but one can get an understanding of their most common usages. The GSMA, which represents global mobile operators and companies, identified five usage categories in its report, “The Importance of Mobile for Refugees”:

- Connectivity, focusing on access, usage and affordability for refugees and IDPs.

¹ According to a UNHCR annual report, forced displacement worldwide at its highest in decades.

Box I.3 (continued)

- Digital tools and platforms, from instant translation apps² to many providing broader integration help.³
- Family reconnection tools, such as UNICEF's RapidFTR and Refugee United's Refunite services.
- Education, where application developers include Coursera, Google, Microsoft, and Pearson among many others. The University of Massachusetts documents a surge in private sector refugee education programs, with 49 per cent focused on technology—often overwhelming donors and governments.
- Livelihoods and mobile money, a critical area where widespread use of mobile technology is changing how aid is delivered with digital cash transfers, some using Blockchain to allow secure IDs. Mobile money is not always an option, but more accessible apps focus on employment, housing, and entrepreneurship support.⁴

Techfugees, a voluntary group that coordinates the international tech community's response to refugee needs, also groups its work under five focus areas. These include: infrastructure, providing internet access, including used phones via Geecycle; education, with its vast number of tools and apps; identity issues, including Microsoft and Accenture's global ID system for refugees and extending to recognition of such things as diplomas and certificates. In health, the apps include UCLA's LUCAS, which performs basic diagnostic testing from a camera phone to mental health applications such as Karim and Crisis Info Hub. The fifth area is inclusion, focused on livelihoods and integration.

New technologies can also be leveraged to provide better public and social services in FCV countries and to develop human capital. In fragile and conflict-affected settings, a lack of security is the biggest hurdle governments face in providing effective services and humanitarian and development agencies encounter in delivering aid. An insecure environment affects the availability of qualified people through displacement and brain drain, as well as violence. Employing new technologies for health and education can help overcome some of these obstacles. In the health sector, a drone delivery system for urgent medical supplies has already proved successful in Rwanda. The same technology can be applied to in-conflict situations, for example to deliver indispensable and urgent supplies to besieged areas.

Drones are playing an important role. The UNHCR use them to monitor displaced populations and their needs and drones monitor and rescue Mediterranean and Aegean asylum seekers. Drones can extend Wi-Fi to refugee camps and displaced populations and soon will be delivering aid, especially to IDPs, who often are more isolated than refugees. Trials of drones carrying people, suggested that the days when responders are airlifted in and the injured evacuated may not be far off.

² See for example "Hello Hope" which teaches language skills, provides instant speech translation, guidance on registration and other essential services.

³ See for example Ankommen, which aims to help asylum seekers find their footing during their first weeks in Germany.

⁴ For example, the Finnish initiative "Startup Refugees" aims to "harness the human capital of refugees, combine it with local entrepreneurship and create new opportunities and more jobs for everyone".

Box I.3 *(continued)*

Simpler, improvised and innovative technologies also have a role. Syrian IDPs produce diesel for transport and generators by boiling, then distilling plastic bags and scraps in metal and stone ovens. Televisions, radios, cell phones and laptops are charged using pedal power. Solar panels abound, some locally manufactured in Syria, as do improvised wind power devices. Yemen has forged ahead the most aggressively with solar panels—producing units that power a few lamps for \$20 to those powering lights, a washer, and television for \$80, as well as solar water filters. This is feeding a new and growing economic sector.

New technologies offer the potential to overcome critical infrastructure constraints that retard the digital economy in FCV countries. Just as solar panels can be used to offset weak national grid power supply, coming innovations in satellite networking could dramatically increase internet coverage and communication capabilities during natural disasters. Such interventions will not only help bypass physical infrastructure bottlenecks but could potentially change the relationship between citizens and states by providing access to the world and their communities free from state intervention or control. Technology, of course, can not only provide people with opportunities for greater freedom and organizing, as in the 2011 Arab Spring, but can also help governments increase control, for example, by blocking access and identifying dissidents.

Technology is not a cure-all for every humanitarian challenge, but the few examples provided here demonstrate its potential to help people affected by conflict and violence. But to work more broadly will require robust participation of private sector actors that are often reluctant to engage in risky FCV settings. For this reason, international organizations such as the World Bank and UN agencies must work with governments and local stakeholders to lay the foundations for greater private sector participation. This will also require that large donor and government bureaucracies become nimbler, more agile and tech savvy as they adjust their policies. This may include enabling greater use of airwaves and air space even as they exert less control over these resources. They will also need a rights-based approach that focuses on such issues as data confidentiality and ensuring that the most vulnerable who may lack access to these technologies are not excluded.

Box I.4. M-PESA: Kenya's Successful Move to Mobile Money

M-PESA is a platform that offers retail financial services via mobile phone to Kenyans, especially those in underserved rural areas far from brick-and-mortar bank branches.

Launched in March 2007 by Safaricom, Kenya's leading mobile operator, M-PESA has revolutionized the way many Kenyans engage in financial transactions.

When M-PESA started, Kenya's banking system was underdeveloped, especially in rural areas.⁵ Much of the country is sparsely populated and banks found it uneconomical to build branches where the expected level of activity would not generate enough revenue to cover the fixed costs of the branch.

Money transfer via SMS texting was the first service offered by M-PESA (pesa means "money" in Swahili). Users could electronically send and withdraw funds (called 'e-money' or 'e-float') using a feature on a mobile phone (a smartphone is not necessary). The actual exchange of money (deposit by the sender and withdrawal by the receiver) occurs through a network of agents that essentially act as ATMs (there are more than 110,000 agent outlets, 40 times the number of bank ATMs). M-PESA succeeded because its agents are established businesses with a physical presence in the areas served. They include small shops, gas stations, post offices, and even traditional bank branches. Participating in the M-PESA network allows them to earn more revenue without incurring additional fixed costs.

As with any platform that allows two or more different types of participants to engage in exchanges, M-PESA's success depended on interesting all types of agents (in this case senders, receivers and agents) in its service. The pricing structure thus had to be consistent with the utility each agent received from the service—in practice master agents received about 30 percent of the commissions paid by Safaricom and retail agents received 70 percent. Under the fee structure, cash deposits incur no fee, while a sliding commission is levied either when e-money is sent or when it is withdrawn in exchange for cash. Agents earn a fraction of the value of transactions they generate (both cash deposits and withdrawals). Moreover, while M-PESA allows sending cash to non-registered users, the fee is substantially higher than if the recipient also has an account—which creates incentives to participate in the platform.

Since its launch, M-PESA has added additional retail services, becoming a full digital payment instrument and a microcredit platform. At first e-money could be used only to buy airtime for mobile calls, to pay utility bills, and to pay charges at schools that accepted payments through M-PESA accounts. In 2013, Safaricom launched Lipa Na M-PESA ("lipa na" means "pay with" in Swahili), a service that enables merchants to establish an account with a till number that shoppers can use to transfer money from their M-PESA accounts to pay for goods and services they purchase. At the end of 2012, M-PESA launched M-Shwari ("shwari" means "to make something better or good" in Swahili), a suite of banking services that enabled users to open an interest-paying savings account and to obtain short-term loans. Since this is the core of banking activity, M-PESA partnered with the Commercial Bank of Africa for this service.

⁵ According to the World Bank data, in 2006 there were fewer than 3 commercial bank branches per 100,000 adults.

Box I.4. (continued)

At the beginning of 2017, Safaricom launched a specific platform that enabled small-holder farmers to use mobile phones to connect with agricultural input suppliers (for such things as fertilizers, seeds, animal feeds), agronomists providing technical support and information services, and, starting in 2018, for some market outlets to sell their harvest. While the farmers are not charged for using the platform, they use their M-PESA account to pay for their input purchases and can get loans through it. Moreover, when they register, they enter many of their farm details (such as size, type of crops planted, whether they own livestock), which is shared with the government to create a national database of farming activities.

M-PESA is growing

After its first year of operation M-PESA had 1.2 million customers. On its tenth anniversary in March 2017, it was serving 30 million customers through 287,400 agents across 10 countries. Today, 96 per cent of households outside the Kenyan capital of Nairobi have at least one M-PESA account. In 2016, the service processed 6 billion transactions. M-Shwari has more than 21 million depositors and borrowers and has lent more than \$30 billion in Kenyan shillings (KES) in its first five years of operation. According to the Commercial Bank of Africa, users have shown good loan repayment behavior. The average loan amount is KES 3,300 while savings total KES 21.6 billion.

According to some estimates,⁶ M-PESA has lifted 194,000, or 2 per cent, of Kenyan households out of extreme poverty. These results, which are stronger for female-headed households, seem to be, in part the result of changes in household financial status. They are better able to withstand sudden declines in income because they can more easily receive remittances and are saving more. The improvement in poverty rates also comes from M-PESA's success in creating financial conditions that enable customers, especially women, to move out of agriculture and into more productive jobs in other sectors.

Why M-PESA grew

The growth of M-PESA is not only a testament to Safaricom's entrepreneurial ability, but also the result of the regulatory stance adopted by the Central Bank of Kenya (CBK), which decided not to oppose the entry of the telecom operator into the financial sector, as long as it offered sufficient guarantees. Indeed, the CBK has been actively involved in the development of M-PESA since its earliest pilot stages in 2004 and it worked with Safaricom on a model that provided the central bank sufficient prudential comfort by mandating that all customer funds be deposited in a regulated financial institution and by directly allowing the CBK to review the platform's security features.

In addition to the "experiment first, then regulate" approach of the CBK, other factors that have helped M-PESA succeed were the ease of setting up an account (which is free and only requires an official ID), its simplicity of use, its affordability for even the poorest users, the high literacy rate of the population, and the high penetration of mobile phones (55 per cent of the population had access to cell phones). Moreover, because there was such limited access to financial services (only 19 per cent of adults had a formal bank account in 2006) there was a large unserved demand for financial services.

⁶ See Suri and Jack (2016).

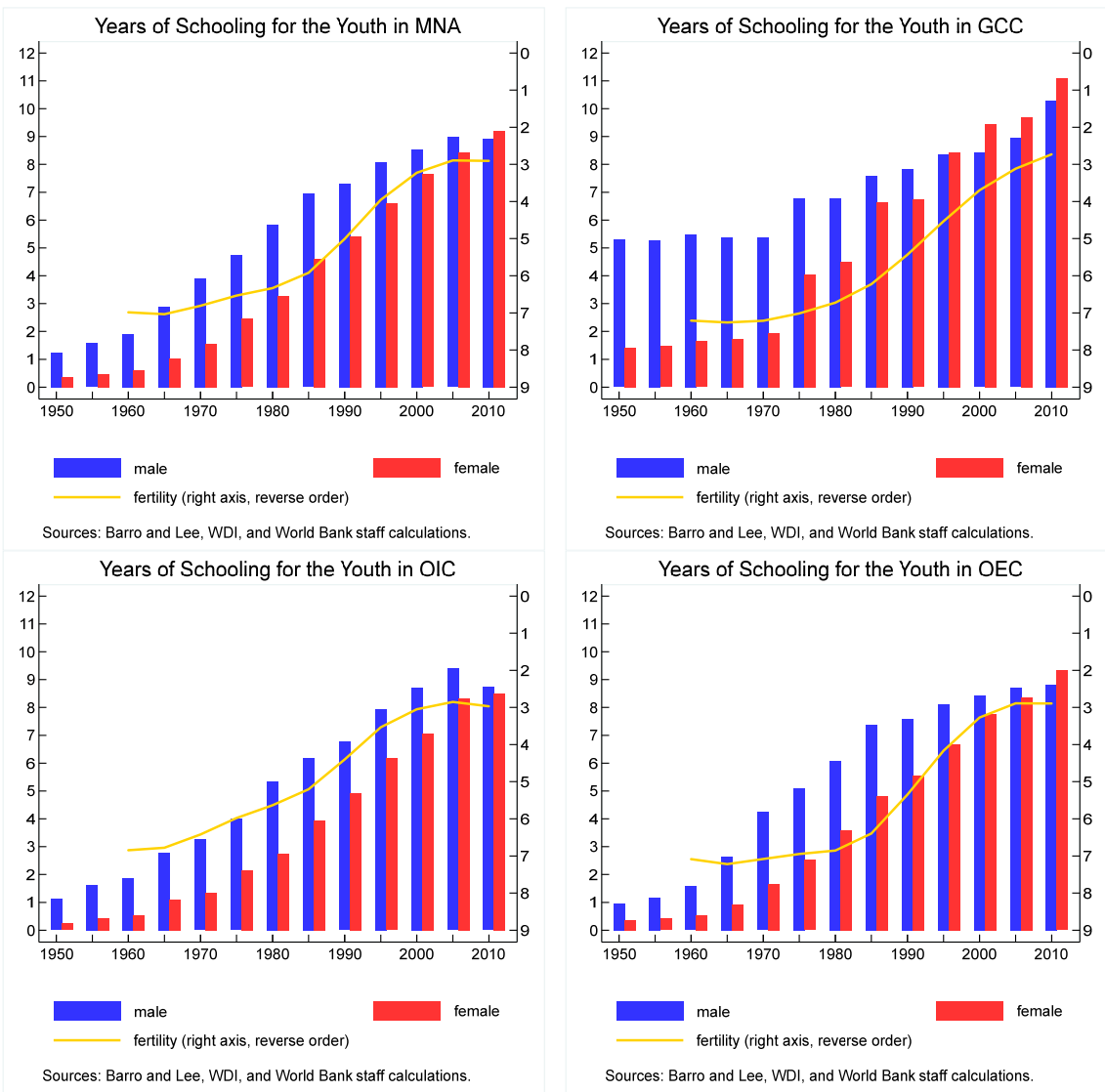
Box I.4. *(continued)*

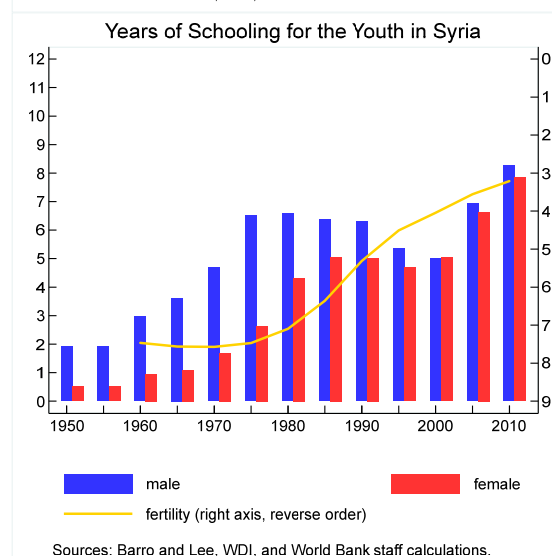
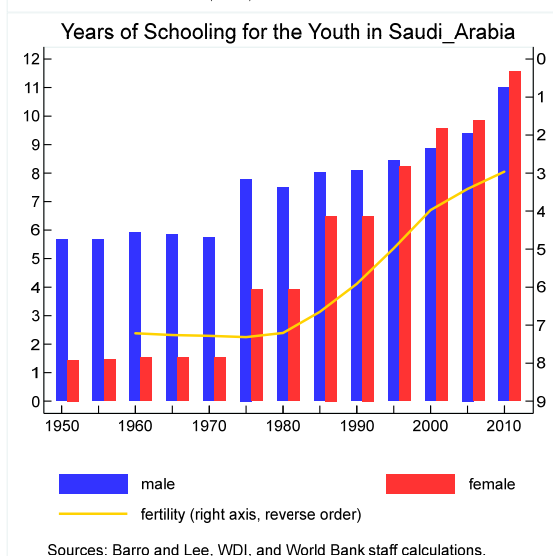
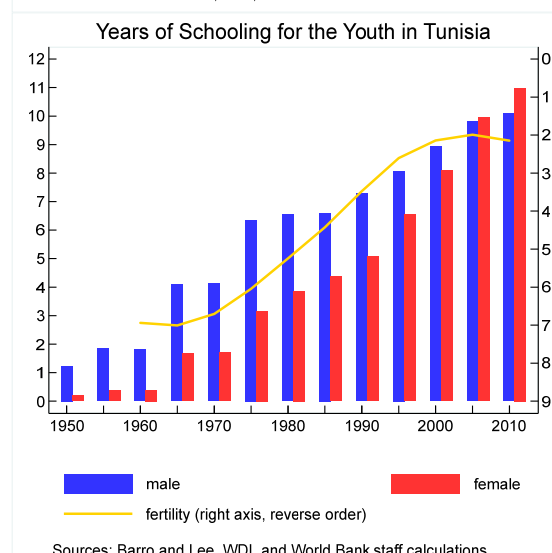
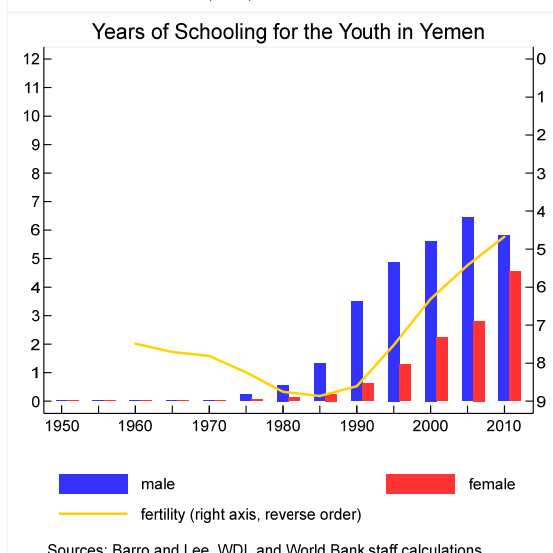
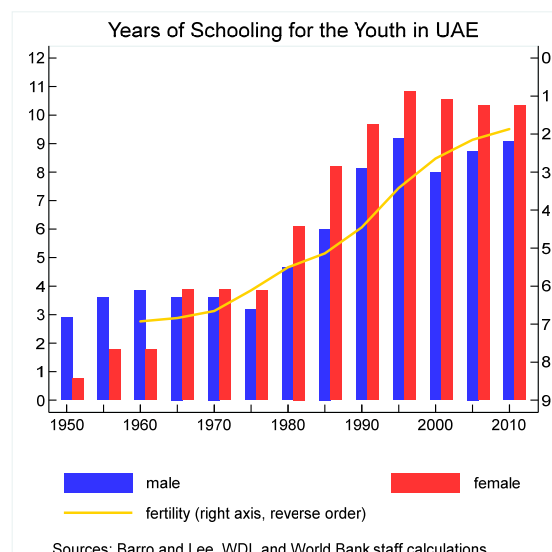
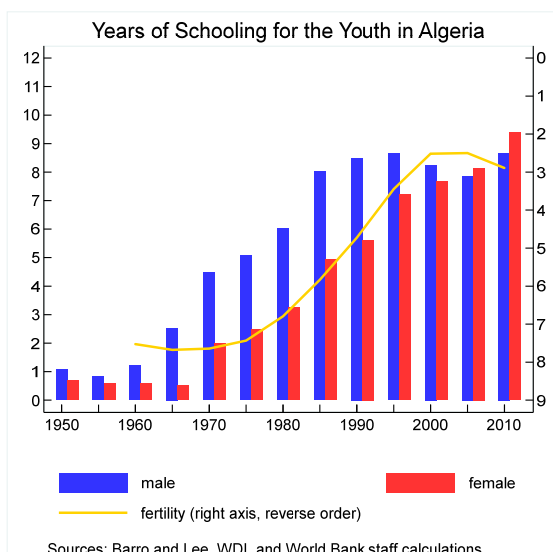
Antitrust controversy

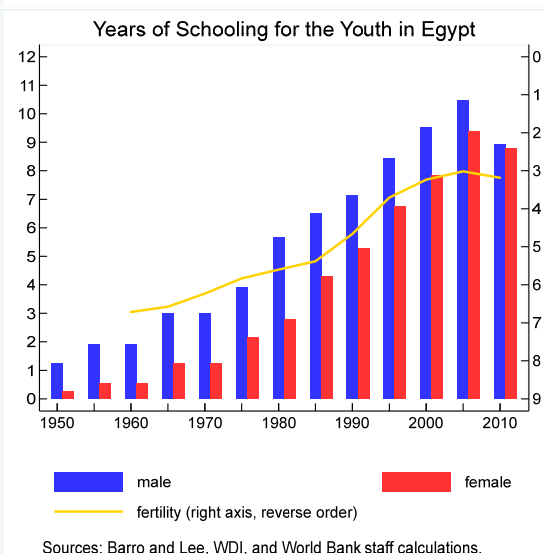
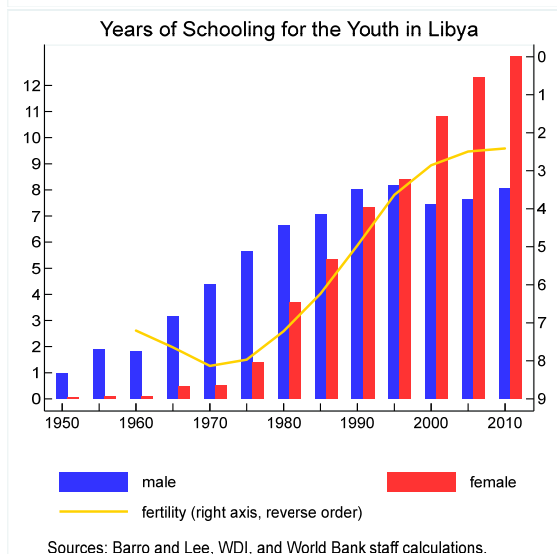
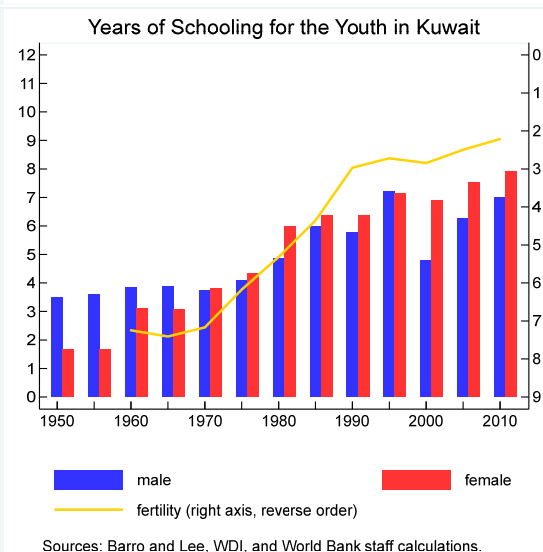
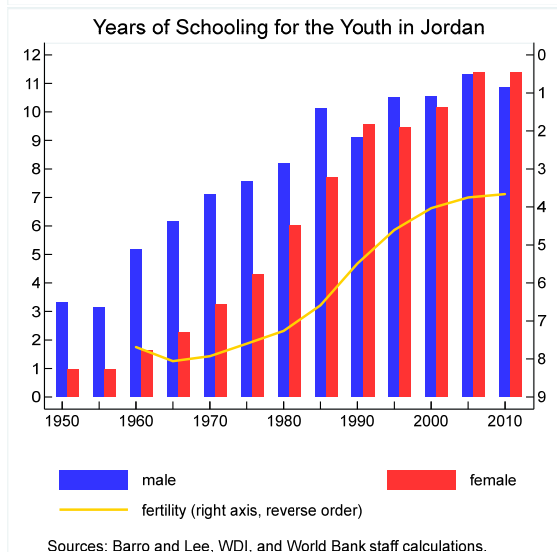
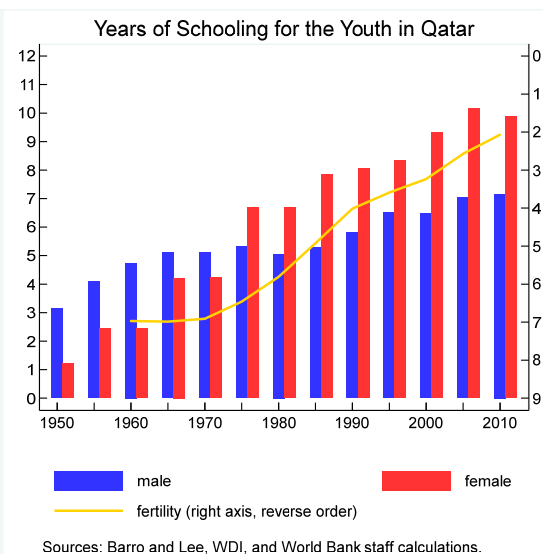
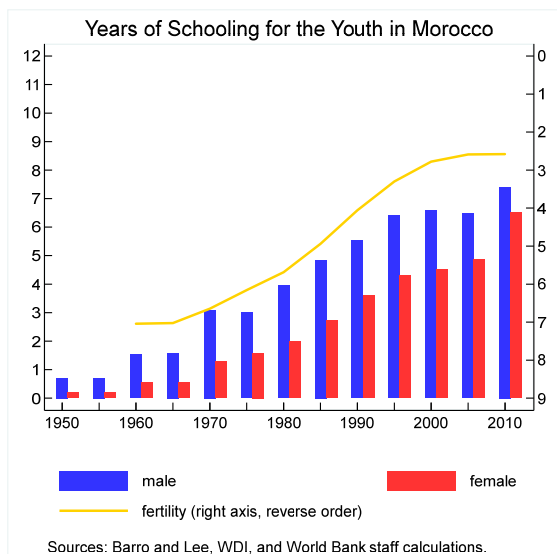
The success of Safaricom caused pushback from its competitors, who for years have accused it of anticompetitive behavior because of exclusivity clauses with its agent network and the lack of interoperability with alternative mobile payment services. Indeed, in remote areas it is very difficult for competitors to find entities that could accept or disburse cash, so M-PESA agents could in principle be considered “essential facilities.”

The arguments struck a chord. In 2016 the Competition Authority of Kenya ordered Safaricom to open its network of M-PESA agents to the other telecom companies offering mobile money services. And in 2017 telecom operators reached an interoperability agreement that allows users to exchange money regardless of whether both parties to the transaction have the same provider.

Figure I.1 Highly educated female population in MENA







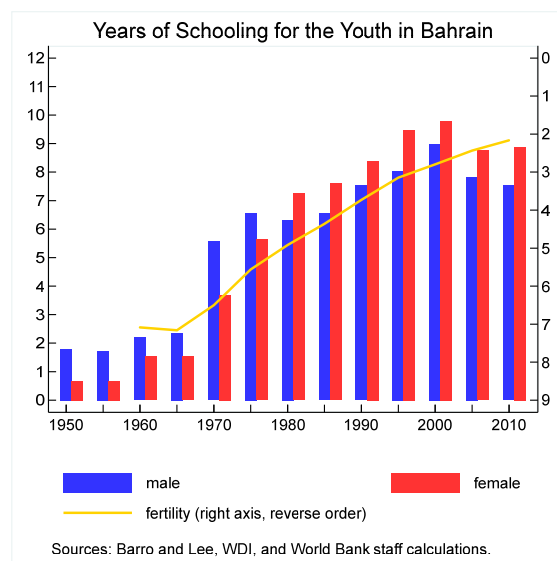
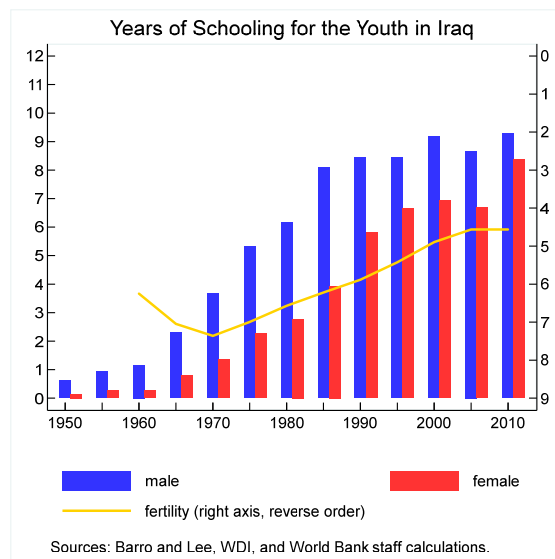
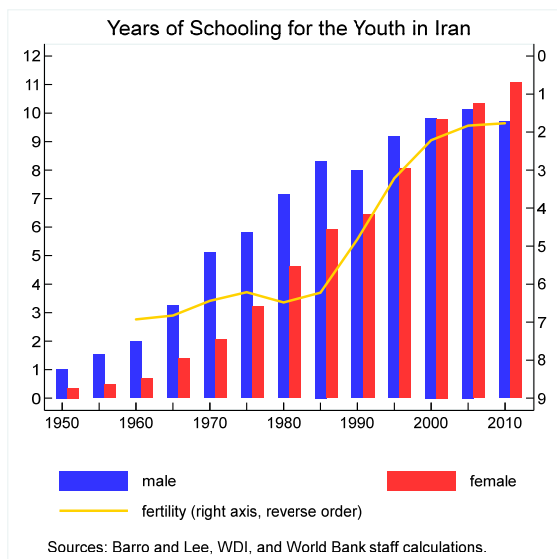
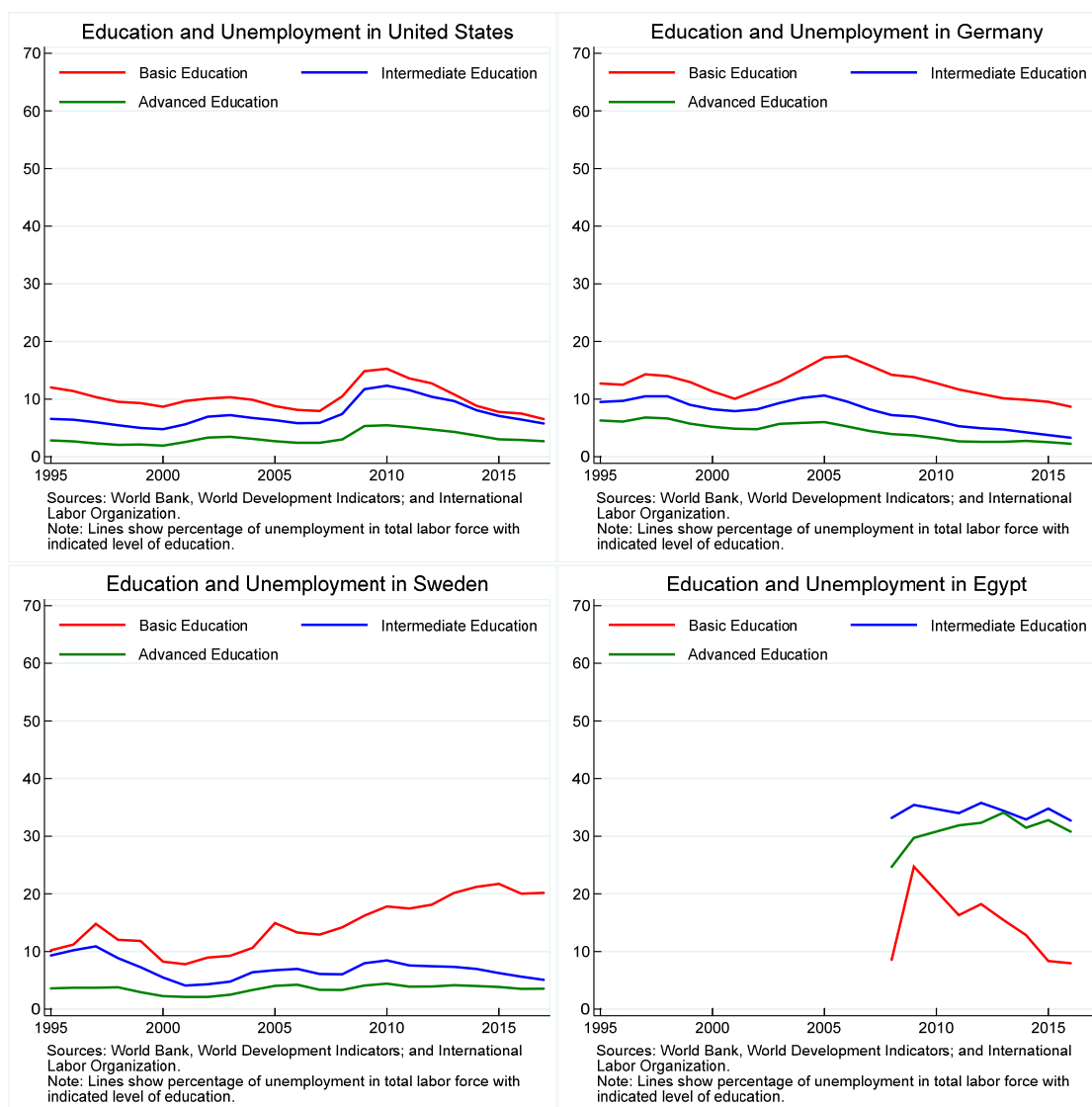
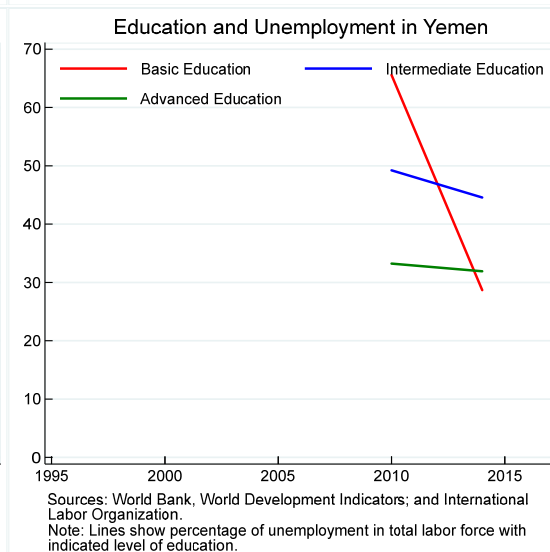
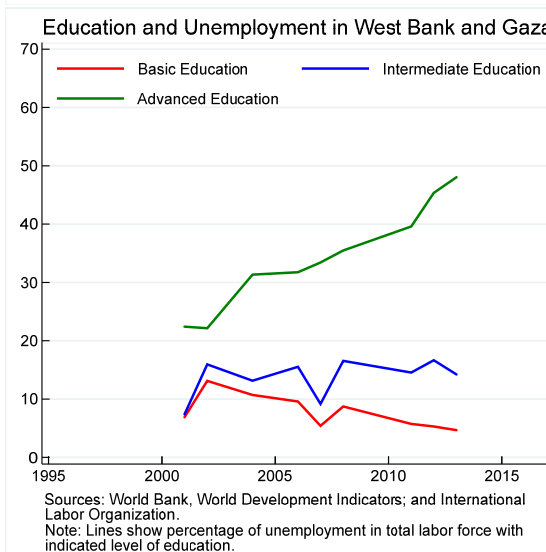
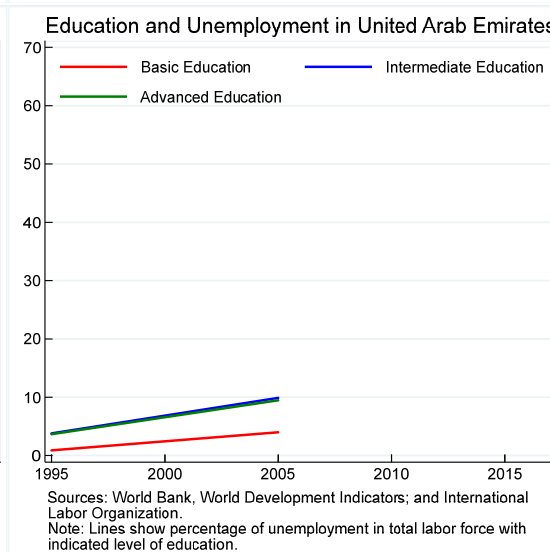
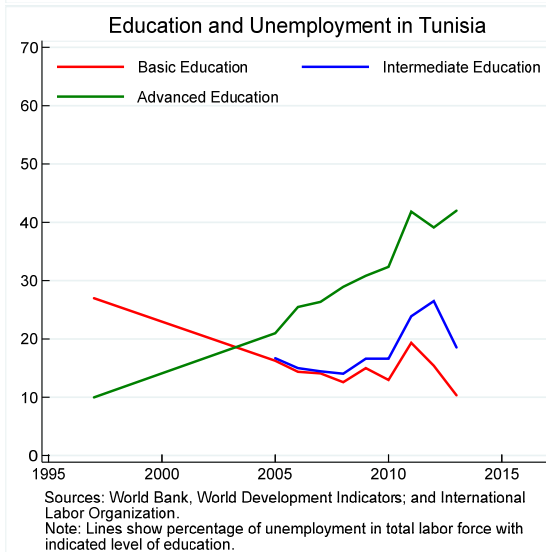
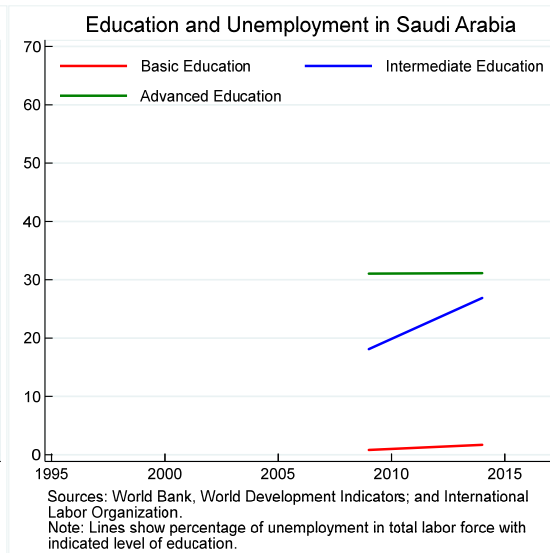
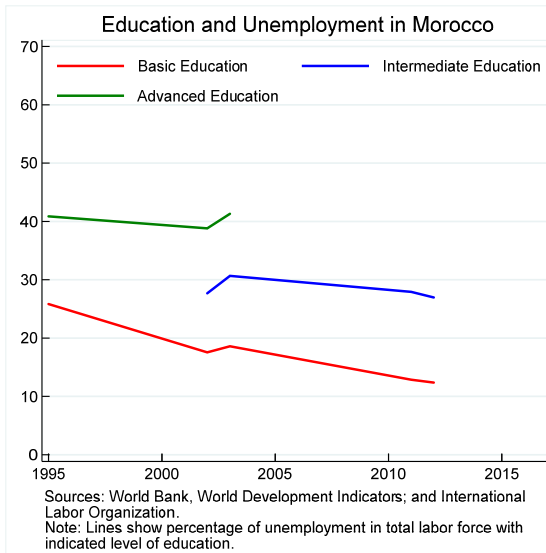


Figure I.2 Educated but unemployed





Chapter 2.

The Middle East “Middle Income Trap”

For developing countries, achieving middle-income status is both a blessing and a curse. While extreme poverty and deprivation have been overcome, what typically follows is a growth slowdown that, historically, has made further progress toward high-income levels exceedingly rare. That has certainly been the case for the largely middle-income countries of the Middle East and North Africa (MENA). Over the last 50 years, MENA countries have faced economic slowdowns and even stagnation. While many of these economies, especially those that are dependent on hydrocarbon exports, have experienced periods of stronger growth, no durable catch-up has occurred (see Box I.5).

The pervasiveness of the middle-income trap among MENA countries points to common structural impediments to growth. In particular, all suffer from a lack of private-sector dynamism, owing to their lack of will or ability to adopt the latest technologies. This has precluded sustained productivity growth, without which it is impossible to sustain an increase in overall living standards.

Underlying the private sector's lassitude is a social contract that has endured for more than 50 years, whereby the state provides public-sector jobs and universal subsidies, in exchange for public quiescence and a lack of accountability. By de-risking the economic lives of citizens, this social contract stifles entrepreneurship and innovation. It has also undermined the delivery of public services, while stoking mistrust of government.

But today MENA governments are increasingly unable to uphold their end of the bargain. Rising debt levels are forcing them to cut public spending, traditionally the main engine of economic growth in the region, and to start dismantling universal subsidies. As geopolitical tensions reduce tourism and foreign investment, uncertainty continues to mount.

Moreover, MENA public sectors can no longer absorb rising numbers of university graduates. While there are serious concerns about the quality and accessibility of schools, the fact is that those entering the labor market are increasingly educated, but unemployable.

In other words, these improvements to human capital have not translated into faster economic growth. Instead, the MENA region has some of the world's highest rates of youth unemployment, leading to the world's largest brain drain, as educated young people seek opportunities abroad. One major reason is that MENA governments fail to encourage—and, in

some cases, actively discourage—innovation. While some countries worry that automation is resulting in job losses, the MENA region’s failure to adopt new technologies is impeding job creation.

The problem is that MENA governments, seeking to protect incumbents, especially in sectors like banking and telecommunications, impose excessive and outdated regulations that deter new actors from entering the market. This short-circuits competition, undermines the diffusion of general purpose technology, and blocks the type of adaptation and evolution that underpins a vibrant private sector.

This is not the case in, say, Asia, a region that embraced new technologies to establish itself as a global manufacturing hub. In fact, thanks to automation, Asia is likely to retain its manufacturing dominance, even after wages rise above the traditional levels of manufacturing-intensive economies.

Against this background, MENA countries cannot hope to pursue the traditional development path of reliance on manufacturing exports. Instead, they will have to develop a more sophisticated digital economy that takes advantage of young, educated workforces. This will require, first and foremost, the adoption of new technologies, and even the provision of “digital public goods” like fast and reliable broadband internet and digital payment solutions.

Although Internet connectivity and digital devices have become ubiquitous in the MENA region, they are used for accessing social media, rather than for launching new enterprises or employing people. This probably has something to do with the fact that the region has the lowest rates in the world for bandwidth per subscriber. When it comes to mobile money, for example, East African countries outperform their MENA counterparts.

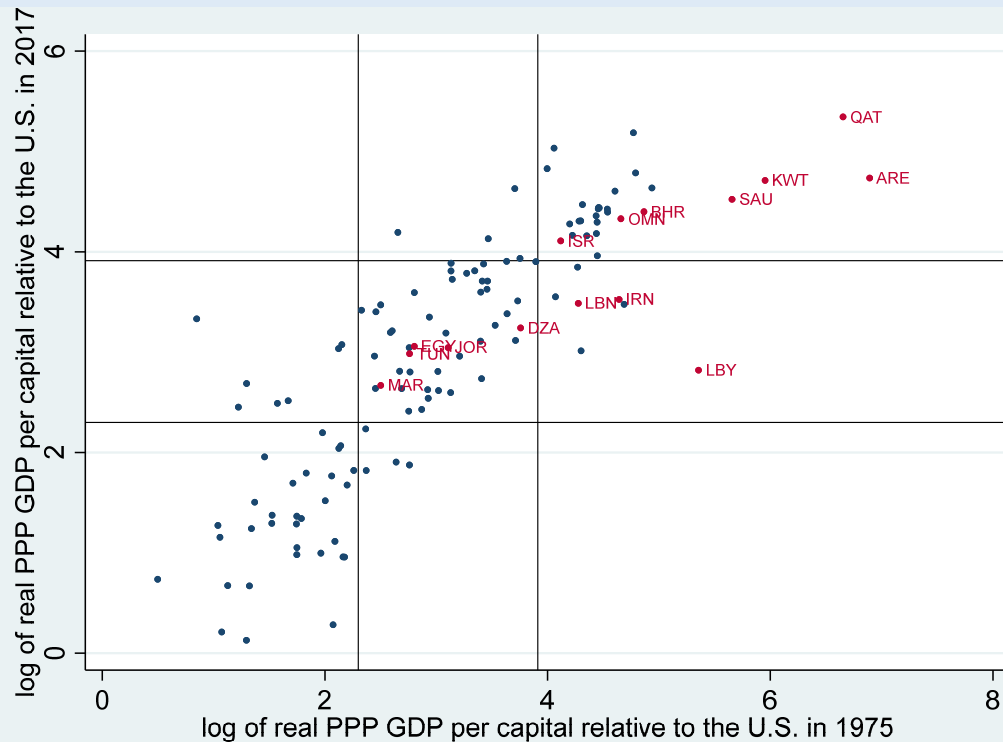
The MENA region urgently needs a new social contract focused on using technology to empower the hundreds of millions of youth who are expected to join the labor market in the coming decades. This will require not just the provision of digital public goods, but also an overhaul of the regulatory system, with Kenya— where a light-touch regulatory approach facilitated the rapid growth of the peer-to-peer payment system M-PESA—offering a useful model (see Box I.4). Easier market entry for new actors, including non-bank operators, is also essential.

Technology can lift MENA countries out of the middle-income trap—but only if the region’s governments take the lead. Otherwise, the region will continue to lag, and its people will continue to seek their fortune elsewhere.

Box I.5 The Middle East Middle-Income Trap: Some Empirical Evidence

The notion of a middle-income trap that inhibits developing economies from achieving high-income status was coined by Gill, Kharas and others in 2007 to open a policy debate on a growth theory to guide development policies in middle-income countries (Gill and Kharas, 2015). The term has been used by top policymakers in such Asian countries as Malaysia, Vietnam and China, to warn about the risk of a ceiling on economic growth after a country achieves middle-income status.

Figure I.3 Middle-income trap



The trap should also be a concern for middle-income countries in the Middle East and North Africa (MENA). No MENA countries that were middle-income countries in 1975 graduated to high-income status by 2017. Even worse, growth dynamics reveal that growth in MENA's middle-income countries is not only low but is also slowing as their income rises.

Middle-income trap revisited

The data on income levels between 1975 and 2017⁷ shows that few countries escaped the middle-income group⁸ (see Figure I.3). Following Bulman et al (2017), we divide countries at each year into three relative income groups: low, middle and high, based on their purchasing power parity (PPP) gross domestic product (GDP) per capita compared to that of the United States in the same year. A country is defined as low-income if its per capita

⁷ Real oil prices in these two years are about the same—\$52.54 in 1975 and \$54.19 in 2017 per barrel (in constant 2017 U.S. dollars), according to BP statistics review 2017.

⁸ The escapees were Korea, Hong Kong SAR, Cyprus, and Portugal.

Box I.5 (continued)

GDP is lower than or equal to 10 percent of that of the United States; middle-income if between 10 percent and 50 percent of U.S. GDP, and high-income if above 50 percent. Countries in the middle-left quadrant are the escapees from low-income group in 1975 to middle-income group in 2017, countries in the top-middle quadrant are those that escaped from middle-income group to high-income group, while countries in the center quadrant are those trapped in the middle-income group after more than four decades.

If we look at MENA countries—which are colored red—aside from the six countries that remained high-income, five have been trapped in the middle-income group (Algeria, Egypt, Jordan, Morocco, and Tunisia), three fell from the high-income to middle-income group (Iran, Lebanon, and Libya), while none escaped.

Growth dynamics of MENA countries

In addition to identifying countries that were “trapped,” we also seek to understand growth dynamics as income increases. Growth dynamics shed light on why countries are trapped at the middle-income level. For example, low and slowing growth rates at the middle-income level would be consistent with being “trapped.”

We use GDP data from the IMF’s World Economic Outlook and total factor productivity (TFP) data from the Penn World Table 9.0 and estimate growth and TFP dynamics for each region, using a non-parametric approach that makes no assumptions about the functional form of this relationship. The non-parametric estimation is a local linear kernel regression of $\Delta y_{it,t+10}$ and $\frac{y_{it}}{y_{ust}}$, where $\Delta y_{it,t+10}$ is the overlapping annualized decadal growth of PPP GDP per capita (or TFP) for country i between time t and time $t + 10$, and $\frac{y_{it}}{y_{ust}}$ is the country’s per capita income relative to the US at time t . The regressions include country fixed-effect to capture time-invariant country characteristics, and decade fixed-effect to control for common global shocks in that decade. We run the regressions for countries in four regions with sufficient data: East Asia and Pacific (EAP), Europe and Central Asia (ECA), Latin America and the Caribbean (LAC), and MENA.

For each region, the nonparametric regressions provide different slopes of annualized decadal growth in PPP GDP per capita and in TFP at different levels of relative income, based on which we calculate the predicted value of the decadal growth as relative income increases. The results of the predicted growth when income is less than or equal to that of the United States (relative income < 100 per cent) are shown in Figure I.4.⁹ The relative income is at the x-axis, and the predicted value of decadal growth is at the y-axis, with 95 per cent confidence intervals.

We find that, predicted growth in per capita GDP for MENA countries is low. Average per capita GDP growth is about only 2 per cent a year when the relative income is low and is persistently decreasing as the relative income increases. This depicts the MENA middle-income traps. The low growth is partly due to even more dismal growth in TFP. At a lower level of relative income, average TFP growth in MENA countries is between 0 and 1 per cent

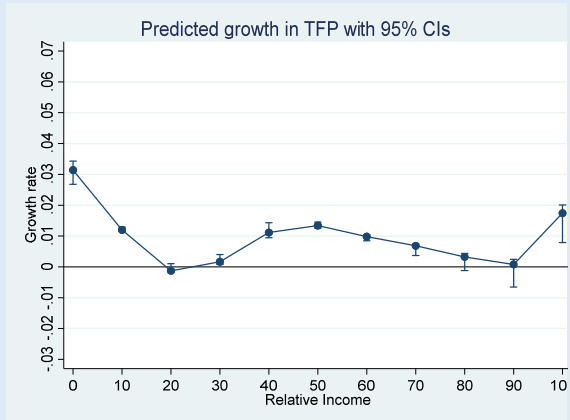
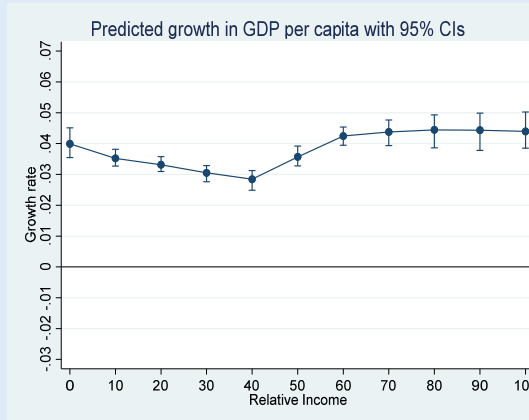
⁹ Results are not shown when relative income exceeds 100 per cent, because growth cannot be precisely estimated due to an insufficient number of observations.

Box I.5 (continued)

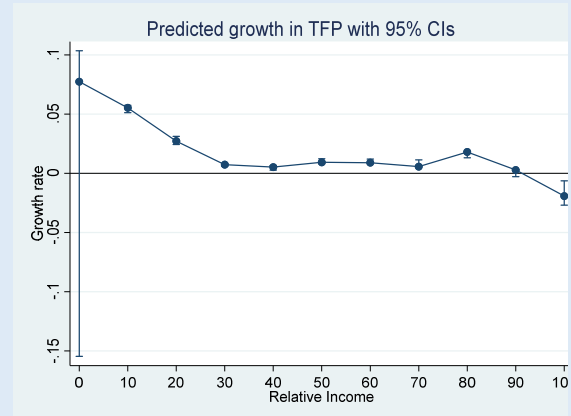
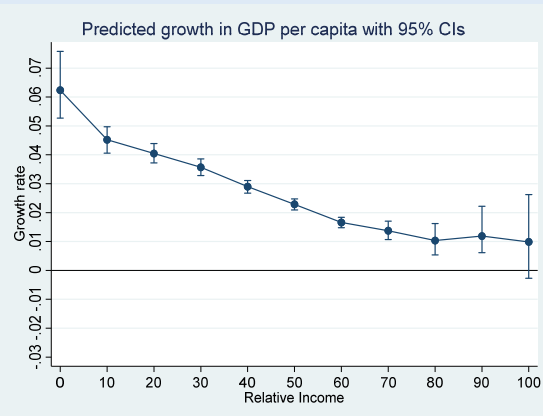
per year. It turns negative when relative income exceeds 40 per cent of that of the United States.

Figure I.4 Predicted growth of income by region

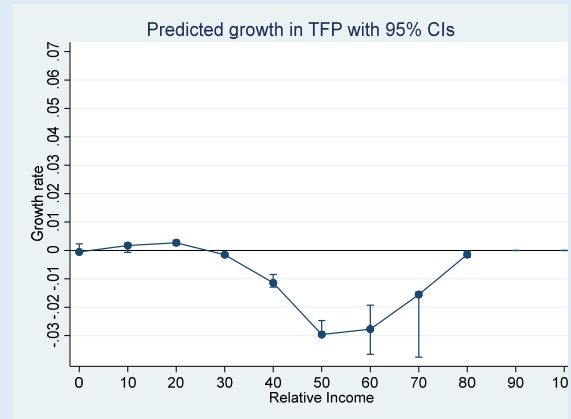
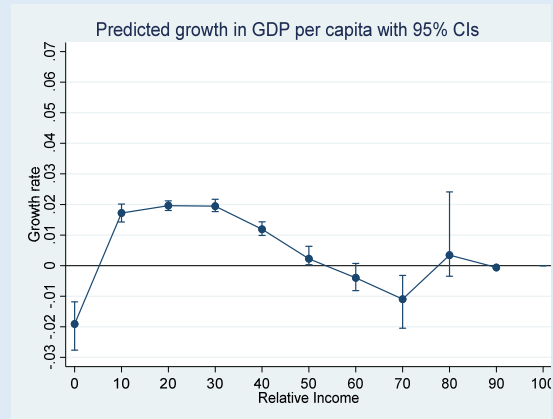
East Asia & Pacific



Europe & Central Asia

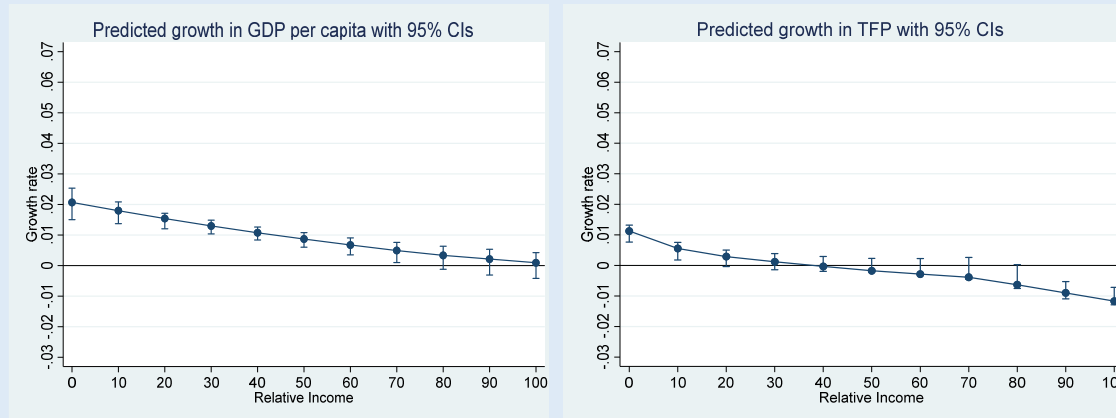


Latin America & Caribbean



Box I.5 (continued)

Middle East & North Africa



The growth performance in LAC is of concern too. The predicted GDP growth never exceeds 2 per cent, and the predicted TFP growth turns negative when relative income hits only 30 percent of the U.S. level. In contrast, ECA and EAP countries have higher growth in per capita GDP and TFP. In addition, GDP growth rates of EAP countries would rebound when income reaches 40 per cent of the U.S. level.

Implications for MENA

MENA growth performance has been unsatisfactory. MENA middle-income countries need a new growth engine to escape the middle-income trap. Information technology could provide a pathway for growth, especially for MENA countries, where there is a high level of human capital. A promising approach for MENA countries is to adopt a technology-based economic model that embraces innovation and encourages risk-taking and creativity.

References

- Bulman, David, Maya Eden and Ha Nguyen. 2017. "Transitioning from low-income growth to high-income growth: is there a middle-income trap?" *Journal of the Asia Pacific Economy*, volume 22, issue 1, pp 5-28.
- Gill, Indermit and Homi Kharas, 2015. "The middle-income trap turns ten," Policy Research Working Paper Series 7403, The World Bank.
- and others. 2007. "An East Asian Renaissance: Ideas for Economic Growth." World Bank, Washington, DC.

Figure I.5 Projected dynamics of labor market

Note:

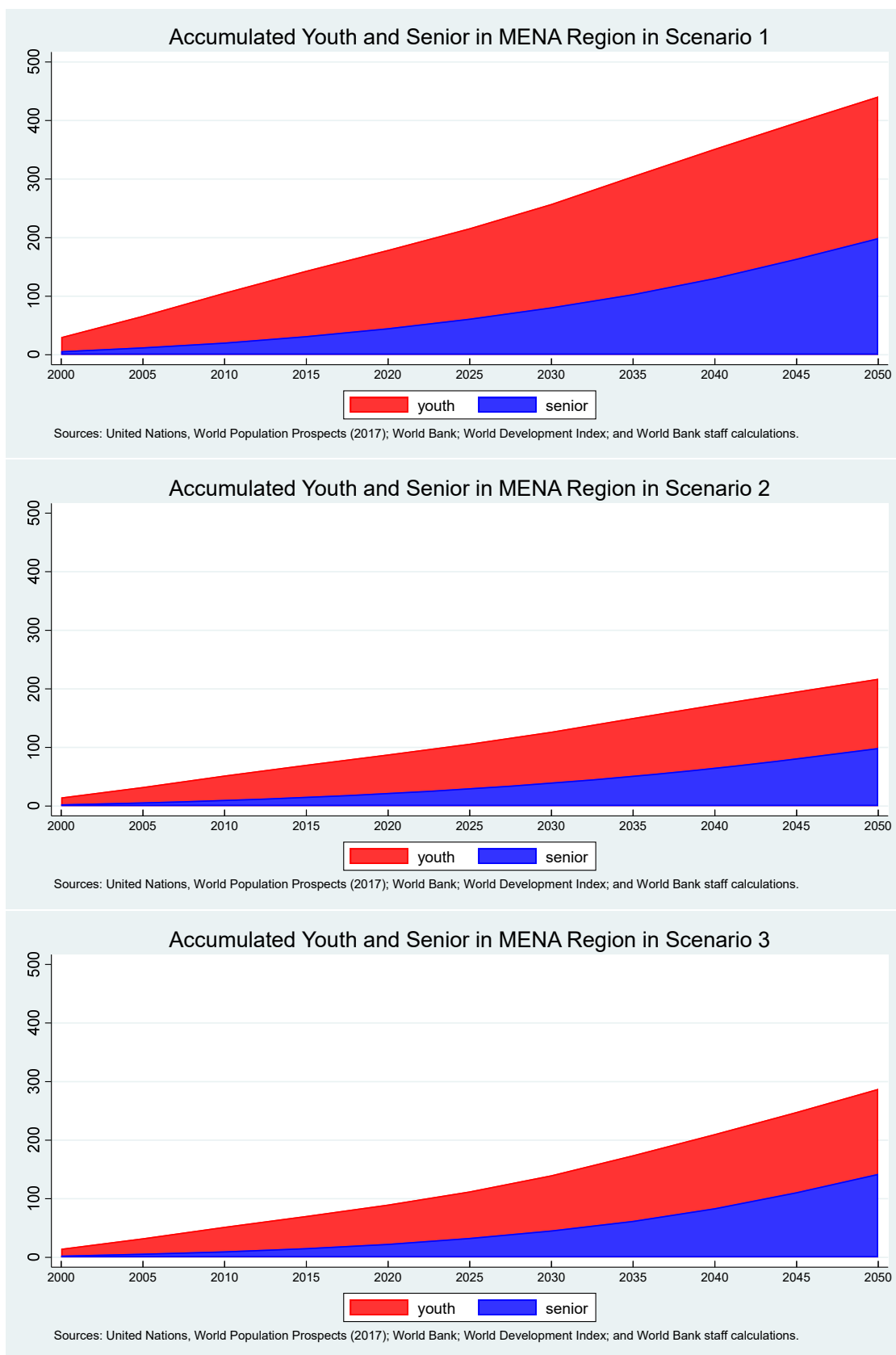
Labor market population is projected in 3 Scenarios.

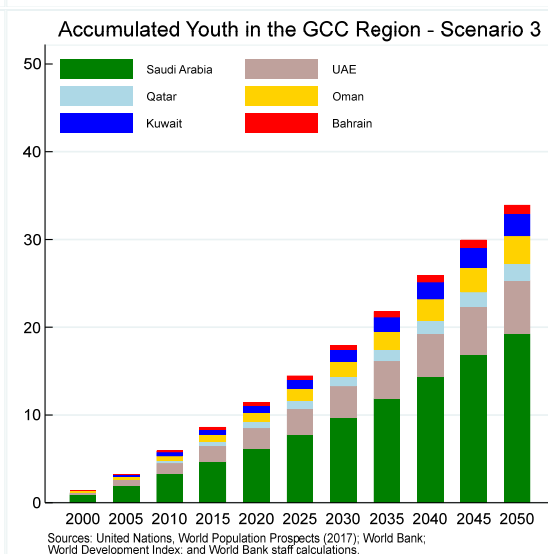
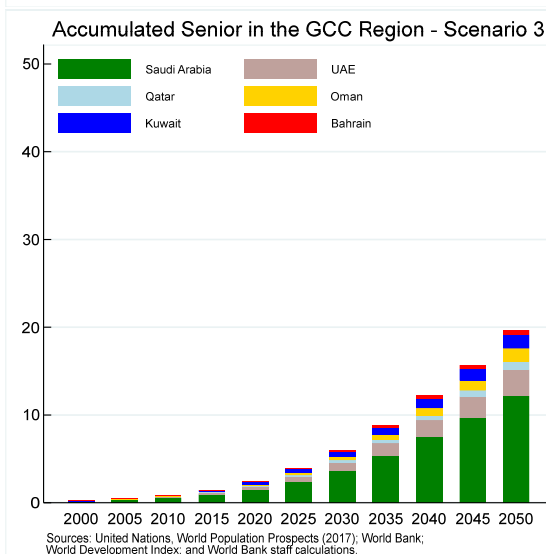
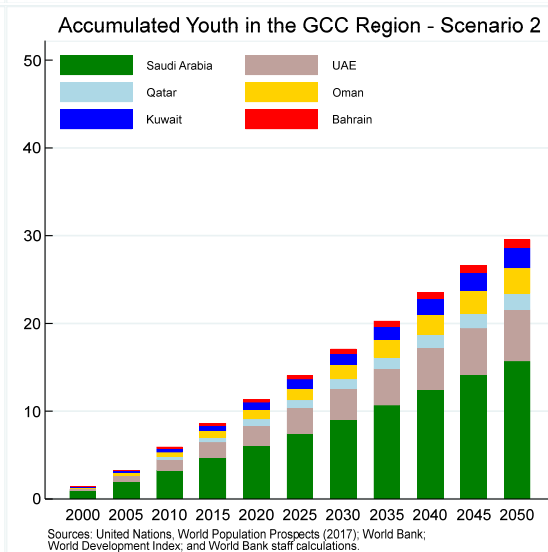
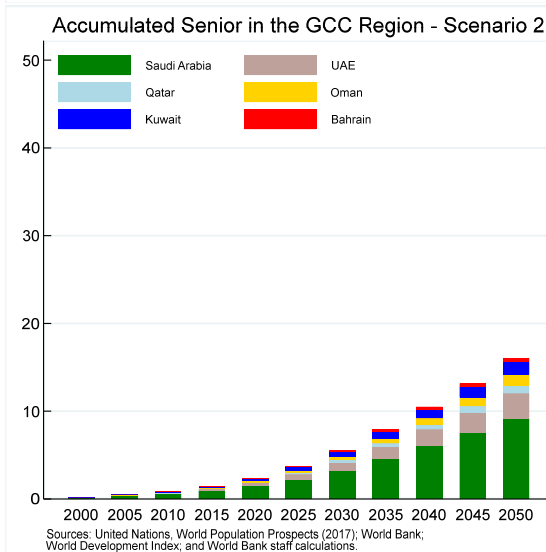
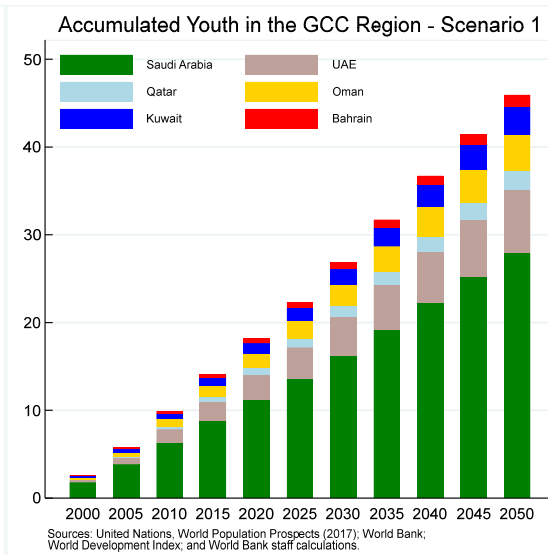
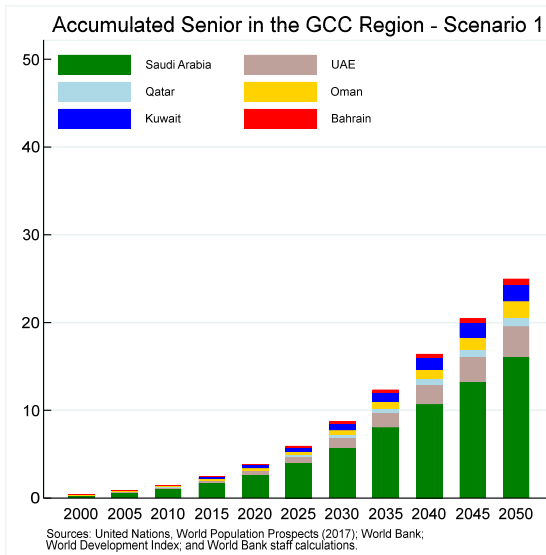
Scenario 1: labor force participation rate assumed to be 100 percent through the sample years.

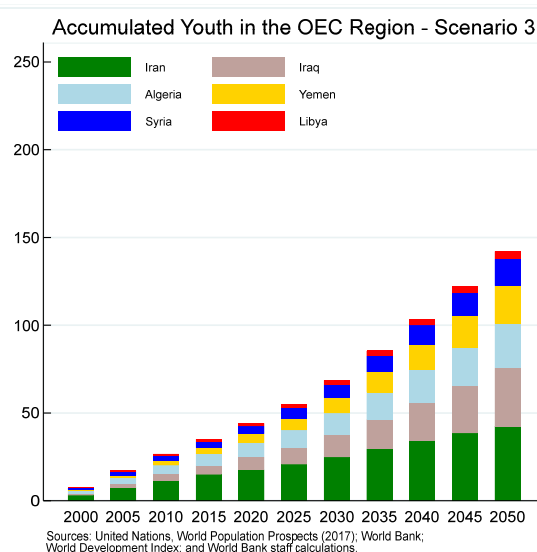
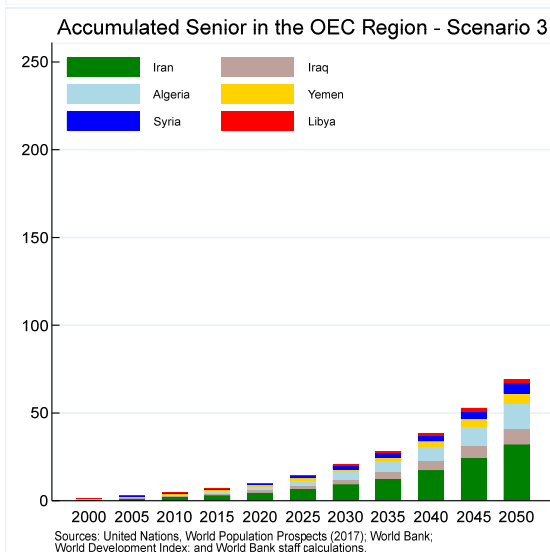
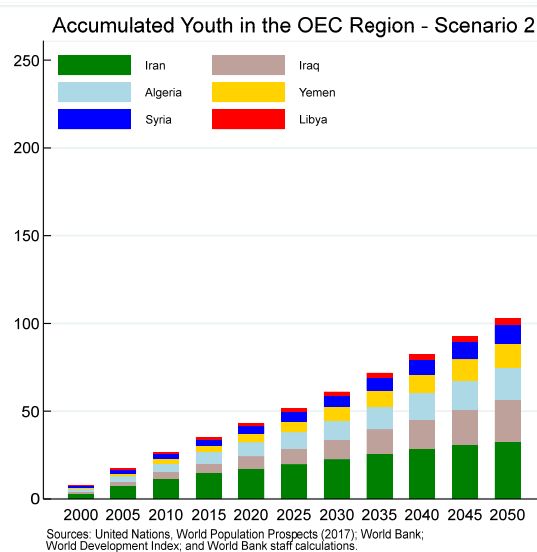
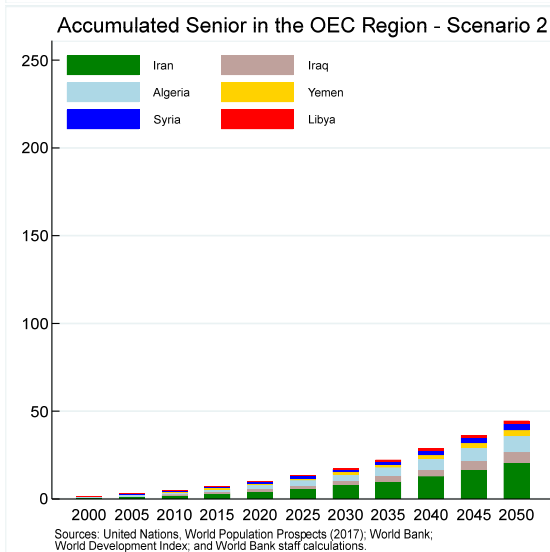
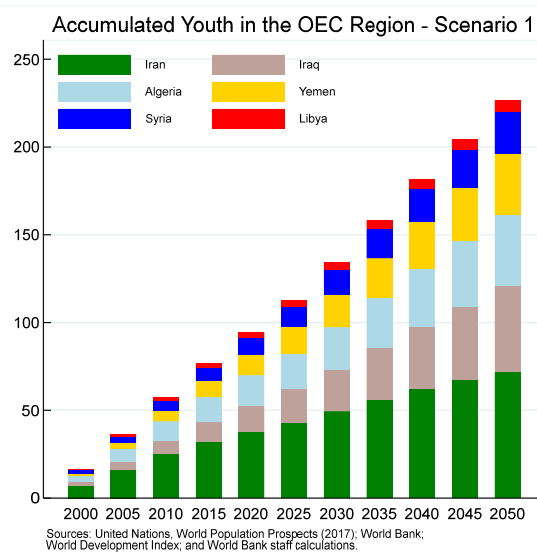
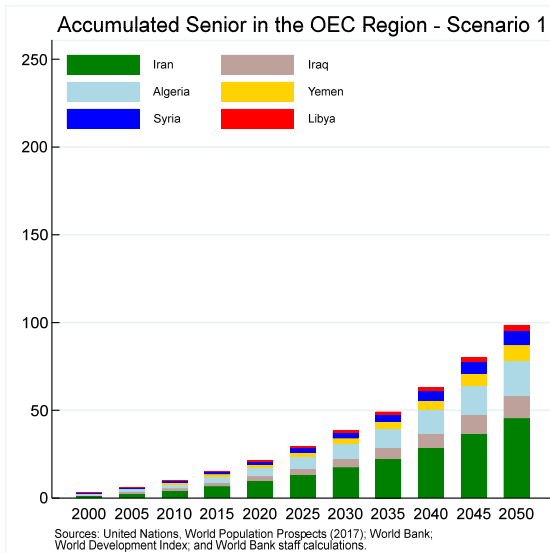
Scenario 2: labor force participation rate starts with historic statistics when available and remains at the level of 2015 for the rest of the period.

Scenario 3: labor force participation rate converges to 89 percent (highest level in 2015) in 2050 linearly.

Youth is defined as population at the age of 20 to 24 (5-year age bands), and senior is defined as population at the age of 60 to 64 (5-year age bands).







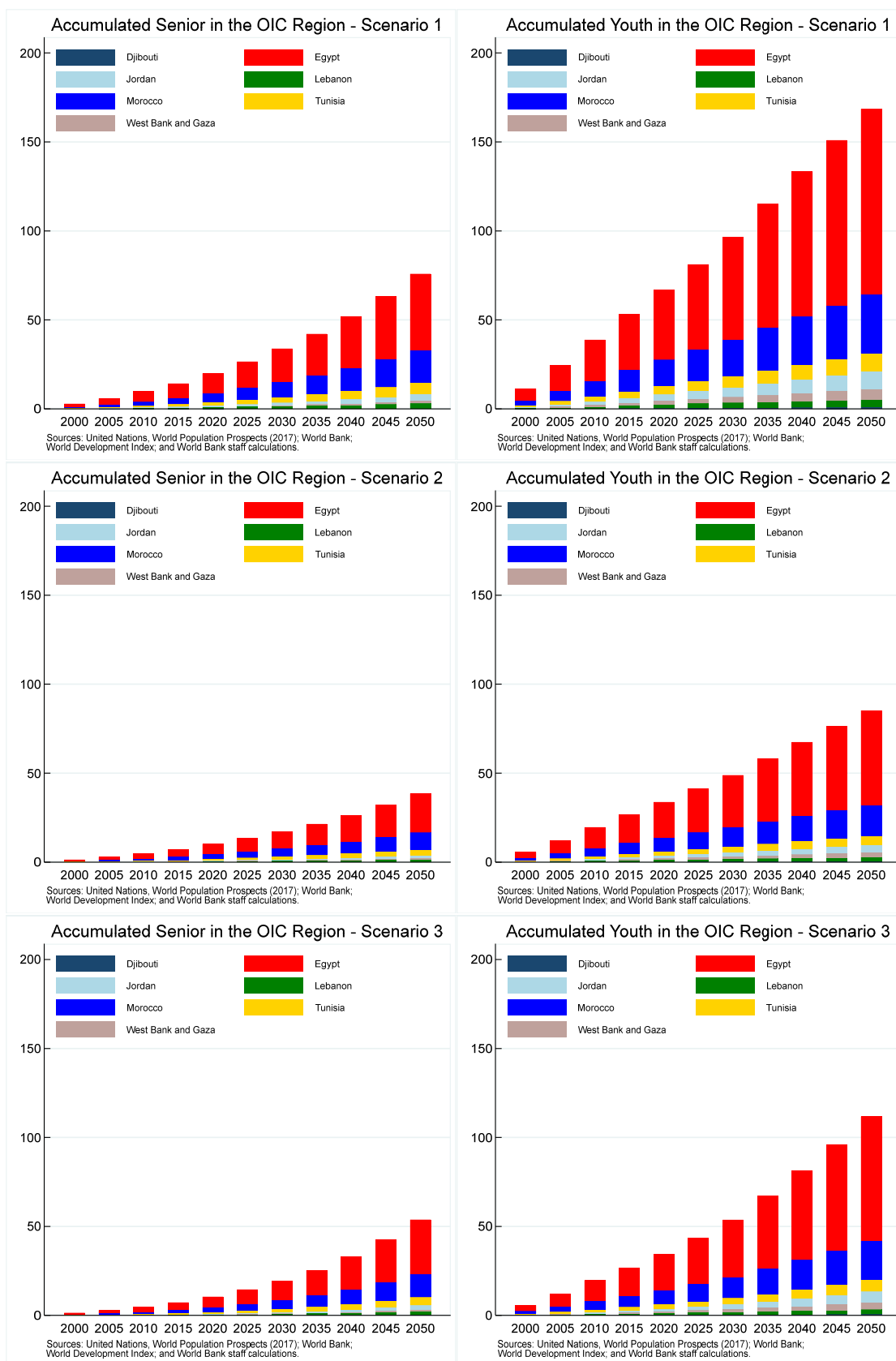
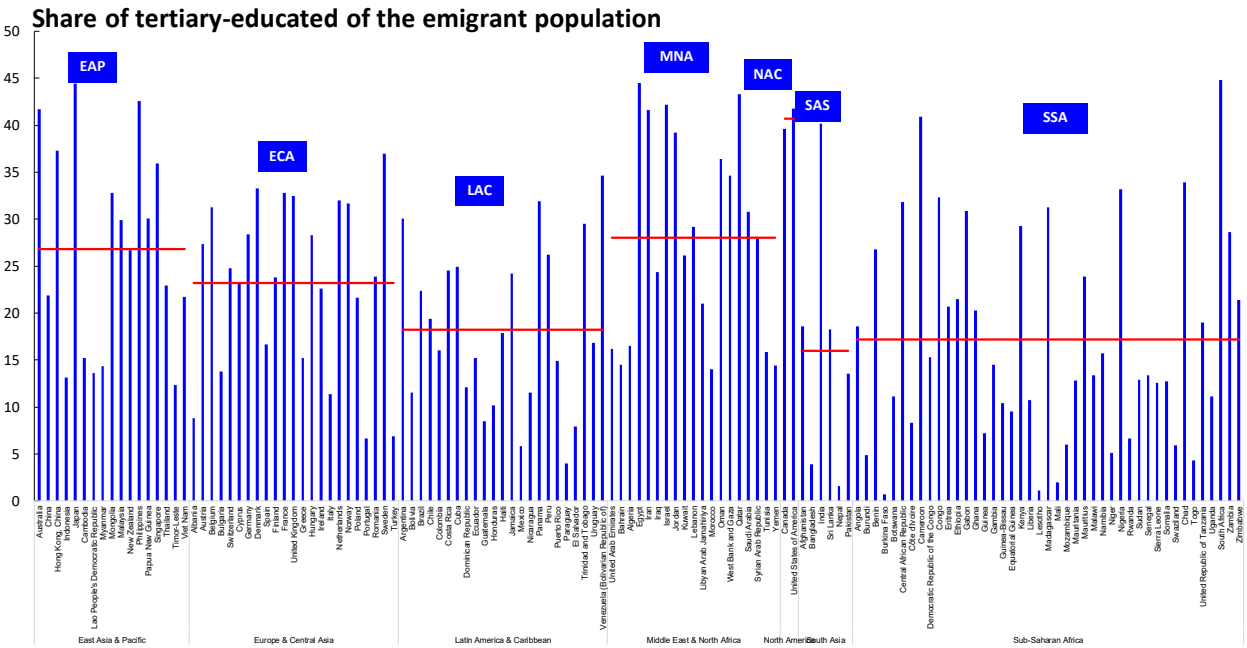
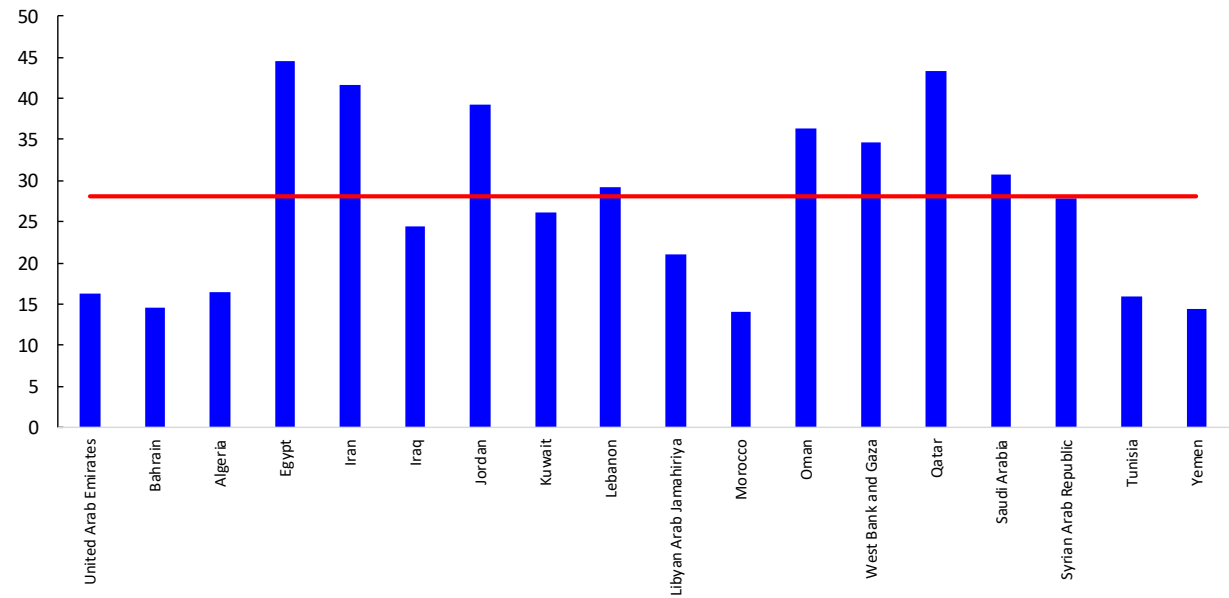


Figure I.6 The brain-drain



Share of tertiary-educated of the emigrant population in MNA countries



Note: Red lines indicate regional averages.

Chapter 3.

Laying the Foundations for the New Economy: A Moonshot Approach

A new economic reality is needed in the Middle East and North Africa (MENA). And that new reality must emerge soon. In a region where the old social contracts are breaking down and hidebound economies fail to employ their most educated and potentially highly productive workers, a gradualist approach to change is not viable.

Instead the region requires an all-in effort, akin to the one the United States undertook after it decided in the early 1960s that it wanted to land a man on the moon. Such a MENA “moonshot” can unite people behind a common goal and transform the ways in which governments, companies, international financial institutions and civil societies conduct business. It would transform MENA economies and help to ensure that millions of the region’s young people can find the good jobs they deserve.

In recent decades, young people in MENA have flocked to universities, but there has not been a commensurate increase in demand for their skills. The perverse result has been that university graduates are more likely to be unemployed than those with less education. This adds to social unease and retards economies by failing to employ their most educated and potentially highly productive workers.

To change that calculus, MENA must rapidly create a new economic reality that can deliver opportunities for all its young people. The old state-led economic model, which is still entrenched in many MENA countries, has reached its limit and can no longer provide the necessary jobs, let alone high-quality ones.

A growth model based on labor-intensive light manufacturing, such as the one followed by East Asian countries, cannot resolve the problem of unemployed university graduates. Moreover, this growth path may no longer work because new technologies are rapidly changing the nature of manufacturing.

The most promising approach for MENA countries is to adopt a technology-based economic model that embraces innovation and encourages risk-taking and creativity. Such a model can provide opportunities for well-educated workers.

Moreover, high-tech applications, such as job-matching platforms, can help less educated workers find jobs. This will require the creation of a modern telecommunications system that enables an inclusive digital economy and the financial infrastructure to underpin that economy.

To achieve such an ambitious agenda, countries must mobilize political support and stir the public imagination. They cannot do that if they continue the traditional incremental approach to change. Without a full-blown effort, a generation of MENA youth will be condemned to unemployment or low-productivity, low-wage employment. And the technological gap between the MENA region and the rest of the world will continue to widen.

MENA countries must emulate President John F. Kennedy's 1961 decision to unleash an extraordinary collective national effort that achieved its seemingly impossible goal: a manned lunar landing in mid-1969.

A MENA moonshot would involve a collective regional commitment to achieve parity with advanced economies in information and communications technology by 2022. MENA countries would seek to equal or better OECD countries in terms of their level of access to the internet, capacity to transmit data (bandwidth) and the number of financial transactions carried out electronically.

The effort to create modern telecommunications and payments systems will require specific and bold goals, firm deadlines and cooperation among all elements of society, including the private sector.

Some of the needed elements are in place already. Young people in MENA are digitally savvy in many ways. They are active on social media and they are heavy users of mobile phones. Mobile phone penetration in the region is among the highest in the world.

But that is about as far as it goes. The quality of internet service in most MENA countries is poor and few people have access to it. Only in sub-Saharan Africa and South Asia is there a lower per capita level of broadband subscriptions and MENA users have a limited amount of bandwidth per subscriber.

Digital finance is almost non-existent. The poor quality of internet and payments systems hinder the development of a modern economy that creates quality jobs for its citizens.

But digital infrastructure cannot be brought up to speed without overhauling the region's regulatory apparatus. Regulators too often see the world through a prudential lens—pre-disposed to limit risks, but blind to catalyzing innovation or encouraging competition. Allowing new firms to enter either the telecommunications or financial industries would lower prices and increase quality. But in both sectors, incumbents and regulators make entry difficult and retard innovation.

Unlike countries in Latin America or Central and East Asia, which have aggressively pushed competition and liberalization in the telecommunications sector, MENA countries have pursued a very gradual approach to change. As a result, Latin American and Asian countries, which a decade ago had internet speeds and usage comparable to MENA, have not only far surpassed the Arab world, they rival advanced economies.

Regulation has so retarded the growth of digital payments in the region, especially in North Africa, that much poorer countries in East Africa outperform MENA in terms of the diffusion of

mobile money. Policymakers should study Kenya's model of light but effective regulation, which has fostered the rapid growth of the peer-to-peer payment system, M-PESA (see Box I.4).

In preparing for the moonshot, authorities in MENA should set two bold goals and plan to accomplish them swiftly, say within four years:

- Create a modern broadband internet that covers all countries, including those that are lagging economically.
- Develop an infrastructure that supports digital money transfer through mobile devices and the internet.

To facilitate modern broadband internet and payments systems, regulators face twin challenges. They must encourage new entrants and enhanced competition, while has been dominated by public banks, they must build trust in the integrity and security of digital finance in a private market in a region that has been dominated by public banks (see Box I.6).

As President Kennedy's 1961 decision galvanized the United States, a 2018 MENA moonshot could unite authorities and young people behind a common goal – and transform the ways in which governments, companies, international financial institutions, foundations, civil societies and even foreign governments conduct business and collaborate. It would transform MENA economies and help to ensure that millions of the region's young people can find the good jobs they deserve.

Box I.6 Digital Disruption of Financial Services in the Middle East and North Africa

There is a growing consensus that expanding the number of low-income people accessing and using financial services, called financial inclusion, plays an important role in alleviating poverty and promoting economic growth.¹⁰ Being able to have and use quality, affordable financial services—such as savings and checking accounts, insurance and credit—enables households to withstand adverse developments like a sudden loss of income or illness. Financial inclusion can also help small businesses invest in productive assets and expand.¹¹

Financial inclusion also helps the overall financial system by contributing to financial stability and financial integrity. Financial inclusion, especially the widespread adoption of transaction accounts, can stimulate continuous modernization and improvement of payment systems and services, ultimately enhancing the overall efficiency of the economy.¹²

Rapid technological change is fostering financial inclusion and expanding the digital economy. Digital financial services leveraging mobile phones, e-commerce platforms, agent networks, and using advanced technologies such as blockchain and artificial intelligence are proliferating across emerging markets. In China, AntFinancial's online platform completed more than \$8 trillion in transactions last year and is considered a driver of rapid social and cultural transformation. In Kenya, access to M-PESA's mobile-money services increased per capita consumption and lifted 194,000—or 2 percent—of Kenyan households out of extreme poverty, with a more pronounced impact on female-headed households. Digital technologies are fundamentally altering responses to forced displacement crises by giving displaced persons and refugees access to digital identification, mobile wallets, and efficient cash transfers leveraging AMTs, iris scanning infrastructure, and mobile wallets.

Region lags

For the third consecutive update (2011, 2014, 2017) the Global Findex Survey found that the Middle East and North Africa (MENA) region has the lowest financial inclusion in the world. While the developing country average for account ownership stands at 63 percent, in the MENA region, only 52 percent of men and 35 percent of women have an account—leaving 145 million of 250 million adults unbanked. In addition, although 80 percent of the unbanked have a cell phone, mobile money account ownership in the region stands at only 7 per cent. Moreover, only 33 percent of adults in MENA made or received digital payments in the last year, compared to 44 percent of adults in other developing countries and 91 percent of adults in high-income countries. Even in markets where e-commerce is gaining traction—such as the in United Arab Emirates, Saudi Arabia, and Egypt—cash remains the preferred payment method; 51 per cent of adults pay “cash-on-delivery” for e-commerce purchases.

The region must take steps to realize the potential of the technological transformation for financial inclusion and the development of the digital economy. They include strong public and private sector commitment, a conducive legal and regulatory framework, reliable

¹⁰ Today, member states at the United Nations are using Global Findex data to track progress toward the Sustainable Development Goals. Through its Universal Financial Access initiative, the WBG has committed to enabling 1 billion people access to a transaction account by 2020. Egypt and Morocco are two of twenty-five priority countries under the UFA initiative.

¹¹ For a comprehensive analysis of the evidence on financial inclusion, see Cull, Ehrbeck, and Holle (2014). Also Klapper and Singer (2017).

¹² CPMI-World Bank (2016). Payment Aspects of Financial Inclusion.

Box I.6 (continued)

communications, technology, and financial infrastructure; transaction account and payment products designed for customer needs; readily available access points; awareness and financial literacy; and large-volume recurrent payment streams, such as government-to-person (G2P) payments.

Regulatory climate lags

The region has a bank-centric financial sector with limited regulatory space for non-bank payment services providers, although this is changing. In particular, Egypt and Jordan have recently updated mobile payment regulations. In both Morocco (2015) and Tunisia (2016), banking laws authorized non-bank payment service providers to operate. Morocco has since issued executive regulations supporting non-bank payment service providers and has recently granted licenses to five providers. Tunisia is expected to follow suit shortly. Yemen issued mobile banking regulation shortly before the war started, which has allowed millions to receive digital payments despite the conflict. Regulatory clarification on permissible activities is still lacking in Egypt, Morocco, Algeria, and Lebanon—which will continue to stifle market innovation.

The development of both digital payments and the broader digital economy can be accelerated through responsible development and oversight of emerging financial technology (fintech) companies in the region. The number of fintech companies active in MENA has more than doubled, from 46 to 105, between 2012 and 2015; they have raised more than \$100 million in funding over the past 10 years, according to Wamda Capital.

Nevertheless, many emerging countries in the region lack an oversight framework governing the fintech services and providers, although some are adopting “test-and-learn” approaches. Still, there is need to create stronger coordination structures within central banks, to gain buy-in from the multiple departments affected by fintech developments, and to involve relevant public authorities on licensing and oversight of these entities.

Needed investment

Strategic investments are needed to scale up adoption and usage of transaction accounts and digital payments in the region, although progress is being made. The region has modernized domestic national payments systems and in April 2018 the Arab Monetary Fund announced creation of a regional entity for clearing and settlement of intra-Arab payments. Additional country-level actions have been taken to promote different payments systems to work together (interoperability). In 2013, Jordan unveiled a national mobile payment solution (JoMo pay) mandating interoperability of mobile payments; and in Morocco, the Central Bank and the Telecom Authority (ANRT), together with providers, are working on a common solution to achieve interoperability. It will be important to ensure broad interoperability across different types of payment services and payment service providers. Furthermore, with advances in identification technology (both digital and biometric) there is an opportunity to leapfrog traditional paper-based approaches and build efficient customer identification systems at a scale not previously achievable. There are some positive developments in the region with regard to identification. A program in Morocco is developing ID systems using an open platform with open source application programmatic interfaces.

Box I.6 (continued)

Enticing consumer use

Even where the infrastructure and regulatory framework are relatively sound, a concerted effort is needed to drive consumer use of digital payments. Many new payment service providers in the region are startups—some of which are not yet profitable and with business strategies and product mixes that still are being tested. To improve adoption of these and other digital payment services, customer needs and profiles must be taken into account in the design of product features. Closely linked delivery models and the network of agents servicing customers must be expanded. There is also a need to strengthen efforts to increase financial awareness and literacy, including using behavioral nudges to promote uptake and usage of digital services to overcome the strong preference for cash in the region. Policymakers must invest in robust consumer protection rules ensuring that customers have recourse when they are treated unfairly by digital financial services providers.

In the end, though, the successful development of digital payments will be closely linked to efforts to digitize large-volume recurrent payment streams, such as domestic remittances, wages, and G2P payments. In the region, 7 million banked and nearly 20 million unbanked adults receive private wages in cash; and 4 million receive government payments in cash. Digitizing these, and other large-volume transfers, will not only help increase digital payments, but improve transparency (through reducing leakage and better targeting of recipients), enhance efficiency, offer greater privacy to beneficiaries (particularly women), and provide a gateway to a broader set of financial services. This should prompt MENA governments to scale up efforts to design, pilot, and mainstream digital G2P payment streams.

Chapter 4.

Internet in the Middle East and North Africa

A digital economy is essential to the development of the countries in the Middle East and North Africa (MENA). Citizens and firms in the region need affordable broadband internet to take advantage of digital opportunities (Arezki and Ghanem 2018).

However, digital infrastructure in MENA lags that of other emerging regions. Internet speed is slow. Prices, while lower, remain high. Too few users have high-speed internet. Many internet markets in MENA countries have monopolies or entry barriers. Severe barriers exist in the markets that provide internet infrastructure, which limit innovation across the whole internet value chain. They limit data centers, constrain data intensive businesses, and hurt the overall environment for a data-driven economy.

The World Bank's MENA Broadband Report highlighted these challenges in 2014, but not much has happened since to change things (Rogy, Gelvanovska, Rossotto 2014). The region must increase competition, promote a disruptive change in the business model of incumbent operators, introduce new investment models, and make the case for deep sector reform. As other regions of the world move towards a digital economy, the MENA region cannot afford to fall behind.

The strategic importance of broadband

Broadband drives firm productivity and fosters job growth. Companies adopting digital technologies are 26 per cent more profitable than their industry peers and employment growth in tech outpaced gains in other professions by a ratio of 27 to 1 between 2001 and 2011 (MENA Economic Monitoring 2018). Led by digital platforms and increasing digitalization in the manufacturing, services, and agriculture sectors, the digital economy worldwide was 15.5 per cent of global GDP in 2016 and is projected to grow to 24.3 per cent by 2025 (Oxford Economics and Huawei 2017). The development of a cloud-based, high-speed digital infrastructure is particularly critical for the development of jobs in urban areas positioned to be service hubs.

Broadband can help countries diversify away from a resource intensive economic model. In the United States, broadband has been recently associated with a non-negligible increase in employment among married women: "Exogenously determined high-speed Internet use leads to a 4.1 percentage point increase in labor force participation for married women. No

corresponding effect is found for single women or men. Among married women, the largest increases in participation are found among college-educated women with children.”(Dettling 2016). Although extrapolating this finding to the MENA region is inappropriate because of cultural and economic differences, MENA is plagued with sky-high unemployment and a large part of its labor force, including educated women, are excluded from the job market.

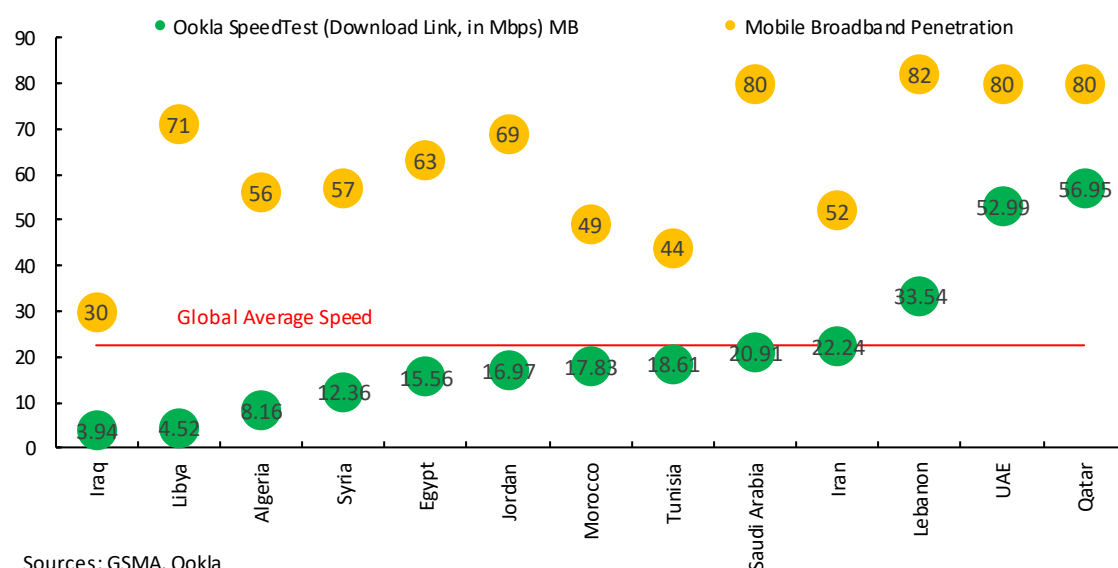
Inclusive, broad-based broadband also enhances delivery of public services and the achievement of broad social goals—for example by using social media and big data in food safety programs; employing gaming, computer, and internet interaction for sexual education and HIV prevention; creating online communities for health awareness programs, and rural empowerment programs. Limited, or uneven deployment of broadband, could be counterproductive because those very groups that are the target beneficiaries of government social programs might be excluded.

MENA lags

Mobile broadband use in the MENA region is more limited than in other regions, including emerging markets in East and Central Asia. Low quality is also an issue. Except for Lebanon, the United Arab Emirates (UAE), and Qatar, MENA countries have mobile broadband speeds below the global average. These indicators show a good competitive dynamic on the mobile access side, the only market segment in the broadband value chain open to competition in most markets in MENA. Still, although competition led to a good expansion of basic voice service, underinvestment in the network infrastructure and limited use of the infrastructure built by other network utilities will limit future growth.

Both 4G and 5G mobile networks rely on fiber backhaul infrastructure—that is using fiber optic rather than copper wires to transmit data both to the tower and to the base-station.

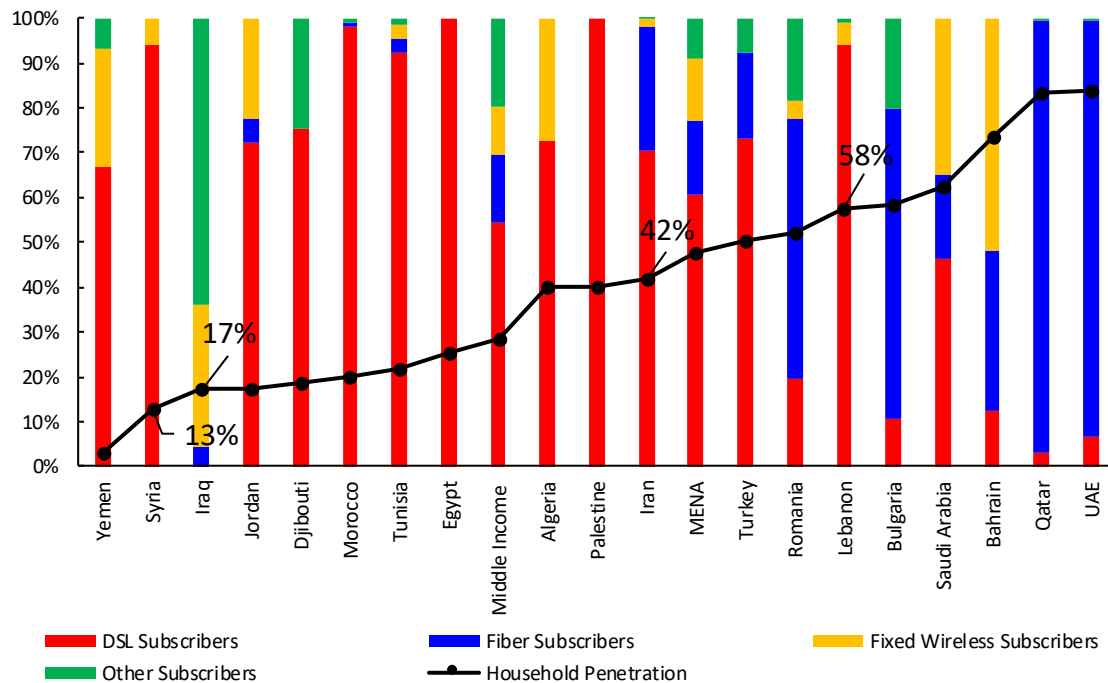
Figure I.7 Mobile broadband in MENA



The situation is worse for fixed broadband than mobile broadband. Figure I.8 shows the technology mix for fixed internet access in MENA, compared to countries in Eastern Europe. Most MENA countries still rely on legacy technology—that is, copper wires—to get the internet

to the end user, while countries like Romania and Bulgaria moved to a fiber access infrastructure. Only the UAE and Qatar use a fiber optic system to deliver the internet to the final user. As with mobile broadband, fixed internet speed in the Gulf is disappointing. None of the countries in MENA has an internet speed at par with global average.

Figure I.8 Fixed broadband in MENA



Source: Telegeography, 2017.

To illustrate the technology delay in the region, it is useful to compare, say, Bulgaria and Morocco. For example, Bulgaria has 1.7 times more broadband subscribers than Morocco. However, when we compare fixed broadband subscribers, the ratio between Bulgaria and Morocco increases to 6.7 to 1. And the ratio is 69 to 1 in the ultrafast, essentially fiber optic, segment. As countries like Romania and Bulgaria, among others, have laid the connectivity foundations for the digital economy (a few Romanian cities have an average internet speed higher than Paris, and the country's average speed exceeds France's), MENA countries rely on legacy infrastructure, slowly migrating the customer base from mobile voice to data.

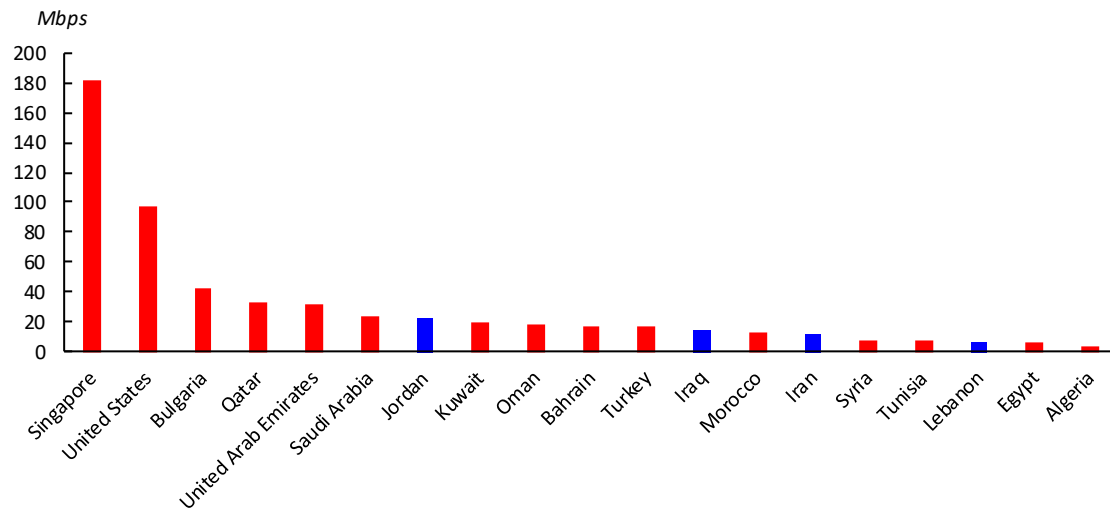
This lackluster performance in internet access is in contrast with an impressive endowment of fiber optic backbone networks (that connect one network to another). Most of the submarine cable infrastructure linking Europe and China crosses the Mediterranean Sea, the Sinai Peninsula, descends through the Red Sea and through the Yemen-Djibouti strait to reach the Arabian Peninsula and the Indian Subcontinent.

This infrastructure is complemented by powerful land-based networks that cross the Mashreq, and provide alternative, high-speed routes.

In addition, domestic utilities in MENA countries have often developed fiber infrastructure to serve their own needs. A country like Algeria has an impressive endowment of 75,000 kilometers of fiber optics, including Algerie Telecom and mobile operators, but also energy giants like Sonatrach and Sonelgaz. Were Algeria to connect this infrastructure to sub-Saharan

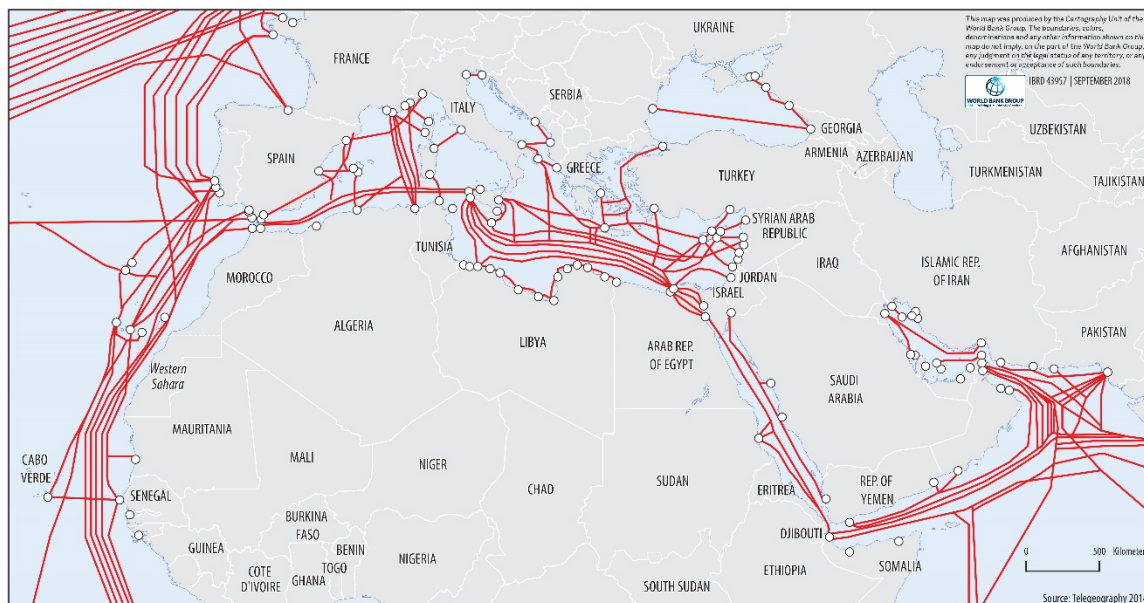
Africa and the cables in the Mediterranean Sea, it could change the geography of the global internet infrastructure.

Figure I.9 Fixed broadband download



Source: SpeedTest Global Index

Figure I.10 Submarine networks around MENA



Potential Lost

Why then can MENA not exploit this potential—and become a hub of connectivity for the planet and develop the foundations for a digital economy? In essence, because MENA has the most-concentrated, least-competitive broadband markets in the world, as can be seen in Figure I.12.

Figure I.11 Land-based networks in the Mashreq

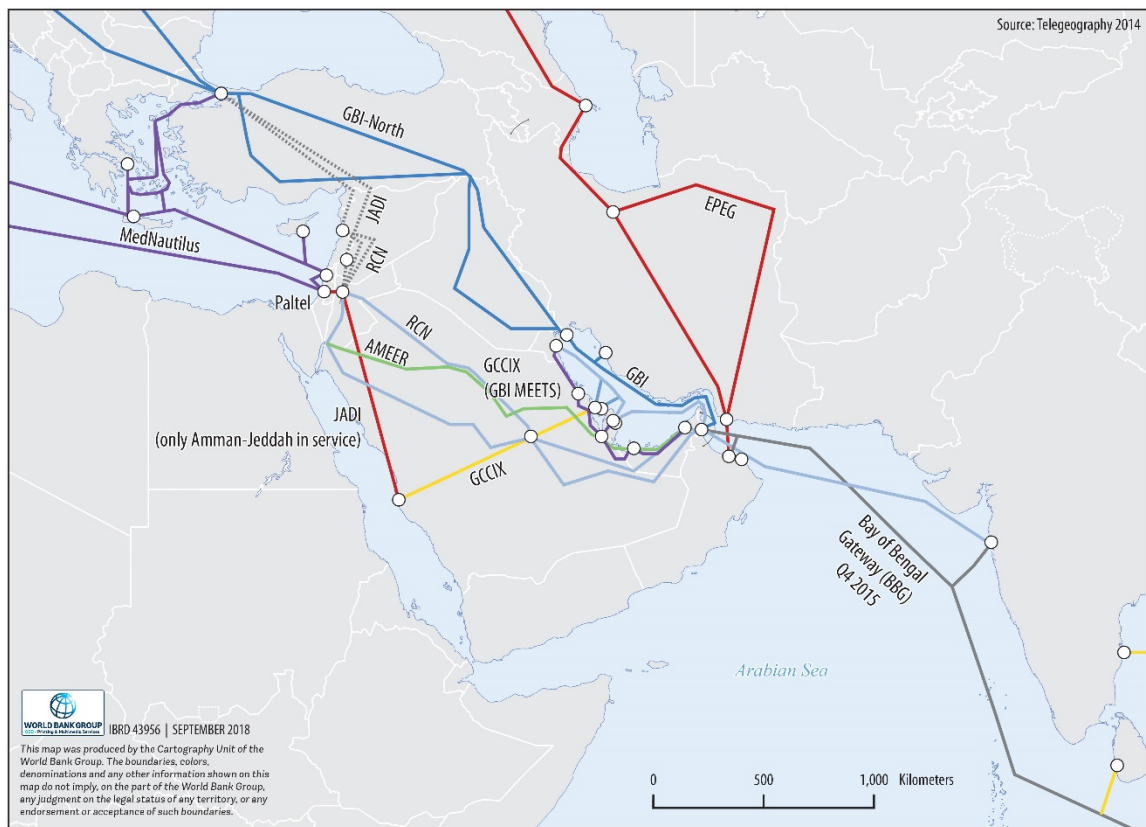


Table I.1 Status of telecom incumbents in MENA

Company	Status
Maroc Telecom	Majority Private (State 30%)
Algerie Telecom	SOE
Tunisie Telecom	Majority Public (30% private)
LPTIC	SOE
Telecom Egypt	SOE (listed)
OGERO/MOT	Public Concessionaire
Jordan Telecom	Private
Iraq IPTC	SOE
Saudi Telecom	Public Investment Fund owns 70%
Paltel	Private

Source: author calculations

Indeed, many segments of the broadband value chain are still closed to competition. For example, none of the countries in the Maghreb opened up the market to privately managed

internet service providers (ISPs). Mid-sized information technology (IT) companies in Morocco, Algeria, and Tunisia exist, but they are not allowed to offer high-speed internet to the final client using their own infrastructure, and need to rely on legacy infrastructure from the incumbent operators. Yet, these type of players—small, domestic, privately managed tech companies—led countries in the eastern EU to a position of leadership. Lithuania, for example, has full fiber optic penetration (from source to user) in excess of 40 cent and most of these connections are provided by operators other than the incumbent one. Mid-sized Maghreb IT companies have the same skills or potential as those in Lithuania but cannot enter this market segment. The situation is more open in countries like Jordan and Palestine, where privately managed ISPs can develop a full optic offering (called FTTH, or fiber to the home).

As a result, the broadband infrastructure in MENA is still influenced by mostly overstuffed, state-owned incumbent operators with legacy infrastructure. At a time when a former monopoly like Orange plans to invest hundreds of million dollars in Africa's large online commerce platform Jumia, MENA countries are still paralyzed by state-owned incumbent operators.

Making Markets Work

For the MENA region to create a reliable broadband internet infrastructure, which is the essential foundation of a digital economy, countries must:

- **Deepen competition.** Authorities should award licenses to allow new entrants to compete in the data infrastructure and international gateways segments. In the last four years, only one major new license was awarded in the region—to a wholesale broadband operator license in Tunisia. If domestic players, mainly competent IT firms employing local youth, are allowed to enter the market, they can play a great role in building MENA's broadband infrastructure.
- **Eliminate rents.** Because there are no competitive pressures outside mobile voice, telecoms are not migrating towards a broadband-based business, fearing they would cannibalize their core profit drivers, such as incoming international calls. However, these rents create a model that is unsustainable in the long term. Telecom operators must move their business models toward data so that overstuffed state-owned enterprises cannot prevent MENA countries from establishing the necessary connectivity foundations for a digital economy.
- **Create regulatory incentives to invest in broadband.** A young, tech-savvy and urbanized population will exert generation-long pressure on real estate. Young people will want decent housing for their families, with high-speed internet one of the essential utilities. Regulatory packages to stimulate a joint approach to urban development and broadband development should be encouraged in every MENA country. The infrastructure spending needed to bring fiber to the home can be shared among different utilities, or factored in the cost of new housing. Regulatory interventions on rights of way, coordination of civil works across infrastructure, broadband internet requirements in the building code, and digital mapping of infrastructure (to facilitate entry by small operators), are all changes that proved effective to stimulate broadband in countries in East and Central Asia. In MENA, the basic demographics and availability of capital could stimulate an even more rapid investment cycle if the regulatory conditions are in place. Fast 5G wireless network pilots could be encouraged in the main cities to bring industrial coalitions into play and accelerate the transition to the digital economy.

- **Ensure universal access to broadband.** Every citizen should be able to connect to good quality internet at an affordable price. Everyone should have the right to high-speed broadband regardless of geographical remoteness or low income. Such a universal service provision might require creation of funding mechanisms to guarantee a minimum level of quality in every service area. The mechanisms could be public funding, so-called sectoral funding (in which all telecom and internet providers pay a percentage of their annual operating revenues to sustain investment in the less connected areas), or a combination of the two. On the demand side, governments should consider subsidized tariffs for the poor and possibly some form of financial help in purchasing such hardware as a basic smartphone and computer.

Countries must also adopt an efficient policy on whether telecoms and ISPs should be allowed to prioritize traffic in exchange for payment from the websites and applications running on their networks. There is a contentious debate on so-called net neutrality, because many conflicting interests are at play. From its origin, the internet has developed on the principle of neutrality and telecoms have not been allowed to discriminate among different applications based on content.

This net neutrality has, for example, allowed for the development of internet telephony services that compete directly with the telecoms on whose network they run. Had phone companies been able to discriminate, they surely would have made it very expensive for those applications (such as Skype) to access their infrastructure, making them much less attractive for the final user. On the other hand, telecoms have argued that in a non-neutral scenario they would be able to manage network congestion better (improving consumer experience) and that they would obtain additional streams of revenue that could be invested in enhancing the capacity and the quality of the networks. Similarly, to enhance their attractiveness to consumers, some content providers might prefer to pay for faster delivery of their services to the user. The risk is that young innovative startups could not afford such payments, forcing them to remain in the “slow lane,” unable to reach enough consumers to become profitable.

The net neutrality issue is not settled from either a theoretical perspective or from a policy standpoint. Different countries have taken different approaches. For example, the EU recently adopted a regulation supporting neutrality¹³, while the United States took the opposite approach¹⁴. MENA governments should understand how net neutrality tradeoffs in their specific contexts to understand which risks to minimize—insufficient resources for network investment, creation of entry barriers for new service providers, opportunities for anticompetitive behavior from either telecoms or established internet applications.

¹³ See Regulation (EU) 2015/2120 of 25 November 2015.

¹⁴ See the U.S. Federal Communications Commission’s Restoring Internet Freedom Order that took effect on 11 June 2018.

References

Arezki R. and Ghanem H. (2018), A moonshot for MENA: laying the groundwork for the modern digital economy.

Dettling, L. (2016), Broadband in the Labor Market, The Impact of Residential High-Speed Internet on Married Women's Labor Force Participation.

Kelly T., Rossotto, C.M. (2012), Broadband Strategies Handbook, (Washington, DC: The World Bank)

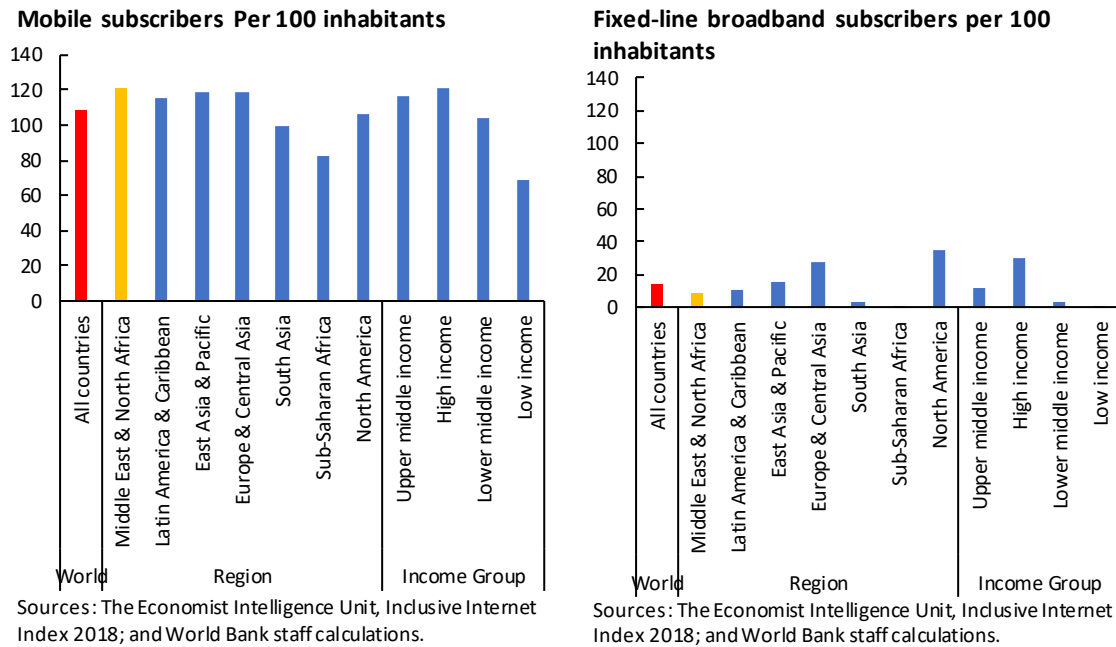
Oxford Economics and Huawei (2017), Digital Spillover. Measuring the true impact of the global economy".

Rogy, M., Gelvanovska, N. and Rossotto, CM (2014), Broadband Networks in MENA, (Washington, DC: The World Bank)

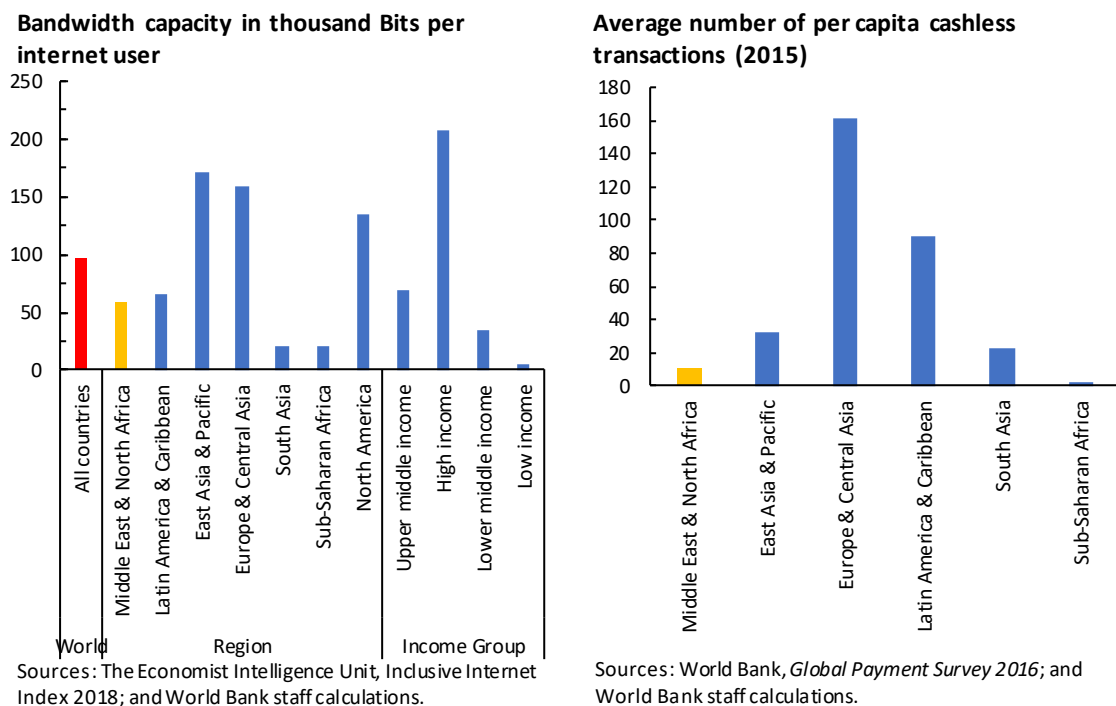
World Bank (2014), Over the Horizon. A New Levant, (Washington, DC: The World Bank)

Figure I.12 Technology readiness in MENA

High mobile penetration but limited broadband

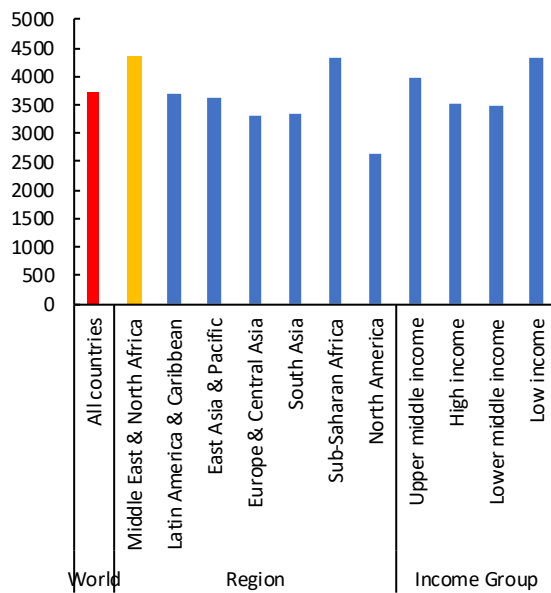


Poor internet quality and nearly no cashless payment



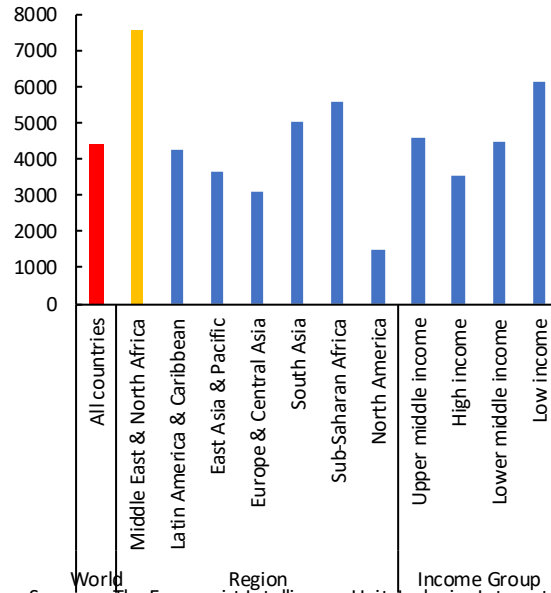
Market structure and incumbency in wireless and broadband

Wireless operators' market share
HHI score (0-10,000)



Sources: The Economist Intelligence Unit, Inclusive Internet

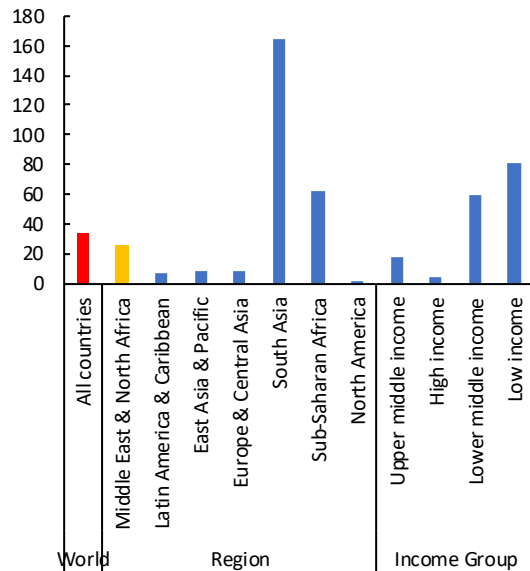
Broadband operators' market share
HHI score (0-10,000)



Sources: The Economist Intelligence Unit, Inclusive Internet Index 2018; and World Bank staff calculations.

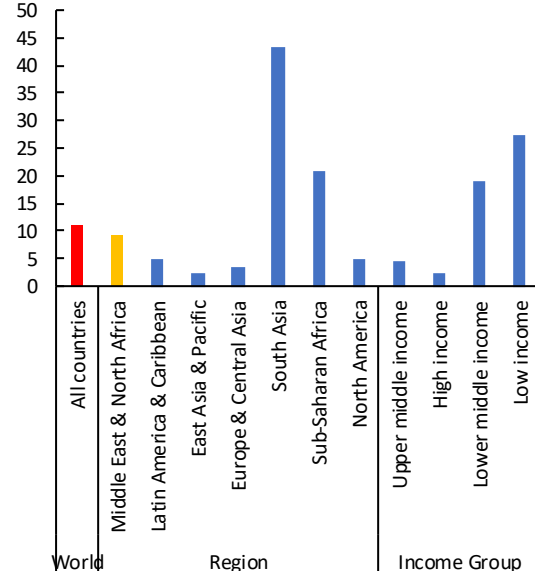
Gender gap (lack thereof) in MNA and why we should promote the new economy

Gender gap in internet access
(% difference)



Sources: The Economist Intelligence Unit, Inclusive Internet Index 2018; and World Bank staff calculations.

Gender gap in mobile phone access
(% difference)



Sources: The Economist Intelligence Unit, Inclusive Internet Index 2018; and World Bank staff calculations.

Chapter 5.

Rekindling the Role of State in the Middle East and North Africa

Economists generally agree on broad principles of how and when the state should play a role in the economy, but they often disagree on the specifics.

For instance, the debate among economists over rising inequality and need for redistribution to ensure social cohesion has proven contentious. Individuals in various countries have different beliefs and expectations of what the role of the state should and shouldn't be. We argue that Arab countries should try to inculcate a culture of "value for money" and promote the emergence of independent, yet accountable, regulators and rely less on the state to rejuvenate their economies and ease inequality.

"State of play"

Although most of the region's ancestral tradition is rooted in commerce, since their independence, Arab countries have adopted state-led development models that have resulted in economies overly reliant on the central authority. This economic model has endured despite dramatic setbacks in the 1990s that prompted various attempts at structural reforms. The durability is rooted in a nexus of arrangements by which the state provides public-sector jobs and universal subsidies that de-risk the economic lives of the citizenry. But these arrangements also stifle entrepreneurship and innovation and have undermined the delivery of public services, while stoking mistrust of government. They have to change, but such a change presents authorities with the prospect of devising a new approach to social protection (see Box I.7).

Harnessing the private sector and technology

Arab countries need to adopt an approach that focuses on the use of technology to economically empower their youth. Indeed, the public sector appears incapable of absorbing the hundreds of millions of young people entering Arab labor markets in the coming decades.

Creating a vibrant private sector that produces technological innovations is one promising way Arab economies can achieve durable and inclusive growth.

This approach is in line with what it takes to achieve the Sustainable Development Goals (SDGs), which were endorsed by all Arab countries, along with the rest of the UN member states, and which are fully aligned with the emphasis on the role of the private sector, science, tech, and innovation. To that effect, the World Bank Group program has launched a new program, Maximizing Finance for Development, to promote the use of private finance to support the SDGs. Similarly, because of mounting levels of public debt, private financing of infrastructure and other projects in developing countries should take precedence over public financing, which should be used only as a last resort, especially in Arab countries.

Fostering a culture of “value for money” and taxation

Accountability is key to a well-functioning state. Developing a culture of “value for money” in public administration helps build trust with citizens. It starts with data, measurement, and disclosure to build robust and transparent diagnostics. Once authorities make an informed commitment, mechanisms such as information feedback loops can allow public administrations to quickly identify quality issues and sustain improvements (see Box I.8). One plausible way to help build trust is to use the localization of development approach that has been employed in countries such as Colombia, Indonesia, and Kenya, but traditionally ignored in many Arab countries when they consider budget design, domestic resource mobilization, and effective targeted spending. If Arab countries can improve the capacity of their local governments to plan, finance, and deliver key services (see Box I.9), they could make great strides towards building confidence with their citizens, and towards achieving the ambitious SDGs.

While most Arab countries spend a fair amount of resources relative to their income levels, they achieve relatively poor outcomes, especially in health and education. Because investing in human capital is the most important long-term action a government can take, the World Bank Group’s initiative called the Human Capital Project is geared toward documenting why human capital investments often lack efficiency and toward helping countries get the maximum “bang for the buck” for such investments.

Arab countries are also among the least efficient tax collectors in the world. That has been due, in large part, to the availability of abundant revenues from, among other sources, the energy sector—which reduces the incentive to mobilize tax revenues. But rapidly emptying government coffers necessitate meaningful tax reform. A renewed commitment to delivering quality services would increase trust between the citizens and the state and could facilitate better tax revenue mobilization.

The essential rise of the regulatory state

Protection of public and private incumbent firms—especially in critical sectors like financial services, telecommunications and energy—is common in Arab countries and imposes excessive and outdated regulations that deter new businesses from entering the market or poorly regulate natural monopolies. This short-circuits competition and contestability, undermines the diffusion of general-purpose technology, and blocks the types of adaptation

and evolution that underpin a vibrant private sector. The regulatory status quo will condemn the Arab youth to unemployment and disenfranchisement.

Historically, the evolving regulatory role of the state has not proceeded without bumps in the road. Today, in advanced and developing economies alike, states are faced with rise of tech giants like Facebook, Amazon, Tencent, or Alibaba with business models based on matchmaking and “turbo boosted” by digital technology. That business model naturally lends itself to markets dominated by a handful of actors. Regulating such markets, especially ensuring free entry and user data protection, requires vigilance on the part of regulators (see Box I.10). Smart regulations designed around access to and use of data are going to be of paramount importance in the digital technology era. In the developing world, leapfrogging should not just be a private sector endeavor but also be a top priority for the public sector to build appropriate regulatory capacity to support sustainable development.

Box I.7 Rethinking Social Protection in the Middle East and North Africa

While there is little doubt that technological change improves living standards, not all workers and firms within a country benefit equally. Nor do all countries. A new World Bank study for the European Union, *Growing United*, provides useful lessons for the Middle East and North Africa (MENA). It shows that automation, artificial intelligence and digital technologies create opportunities for well-skilled workers and frontier firms, while they hurt low-skilled workers and less-productive firms.

Low-income workers are being left behind in the labor market because they have low skills, at a time when technological change requires more intensive skills that complement technology (such as cognitive and socio-emotional skills). The differential impact of technology by skill level is particularly pronounced for youth—which is particularly important for the MENA region where tens of millions of young people will be joining the work force in coming decades. Technology allows skilled young people to leapfrog older workers, but it makes low-skill youth fall further behind, requiring a refocusing of social protection and labor policies.

The pillars of social protection today rely, directly or indirectly, on forms of employment that will change dramatically in a new digital economy. Contributory social insurance was designed to provide basic income protection for unemployment, old age, death, and disability. It is based on the assumption that the labor force would mainly consist of salaried workers in the public and private sectors.

Self-employed workers were largely uncovered by traditional social insurance schemes and efforts to change that have been largely unsuccessful. Unemployment insurance, for example, provides income protection on a temporary basis to those workers who lose their jobs in the formal sector. Targeted social assistance programs, in turn, would provide, on a much smaller scale, income protection for the lowest income earners who could not afford to provide enough resources for their retirement or unemployment.

The problem is not new. Uncovered workers in a stubbornly large “informal sector” long have been the norm in many developing countries—notably in Africa, Latin America, MENA, and South Asia. Efforts to tackle informality from different angles (such as compliance, incentives, and public support) largely failed, forcing a growing role for a non-contributory social assistance. These programs were not only unprepared to expand, but also suffered from an excess of untargeted, expensive, and hard-to-reduce programs—such as in-kind subsidies to energy and food—of the type that predominate in MENA.

A new economy will not trigger a departure from a well-functioning social protection system, but rather will pave the way for a needed and long-delayed shift from contributory schemes of income protection to much larger non-contributory schemes, complemented by flexible retirement savings schemes.

While the shift will be neither automatic nor smooth, some countries are better prepared for the transition, especially those in which retirement savings schemes are most developed—such as Chile, Costa Rica, Mexico, Italy, Poland, and Sweden—and those in which social safety nets have expanded on sound well-targeted grounds—such as Brazil, India, and Turkey).

Box I.7 (continued)

Most countries in MENA will experience difficulties because of the stubborn persistence of traditional social insurance schemes, which tend to be inequitable, fiscally unsustainable, and limited in population coverage. In addition, social safety nets are insufficiently developed and their institutional frameworks are still weak, despite important progress in some countries such as Egypt, Jordan, Morocco and Palestine. Political constraints will play a significant role in the transitions, notably in countries in which stakeholders, such as unions, may actively resist change (Tunisia being a clear example).

Social protection policies in the new economy must offer a universal package of programs, benefits and services, from social insurance to a basic safety net and advanced social and employment services, extending basic protection to everyone.

A good example is a guaranteed minimum income benefit—which is a universal guarantee, although not everyone claims it. Any reform requires adapting it to new clients (the self-employed, entrepreneurs, fringe workers in the gig economy, the informally employed) and to new risks (a failed gig, a failed start-up, not enough hours of work, informal work).

Not only will social protection require adaptation to the realities of the new technological environment, how they interact with their changed client base will also be significantly affected by technological progress.

For example, the digital economy can offer revolutionary identification systems that will improve the ability of governments to reach the poor through safety net programs using biometric databases and connected administrative information technology (IT) systems. Better IDs will reduce the space for discretionary decisions by bureaucrats, significantly impose a limit to inclusion and exclusion errors, and hold down corruption.

Payment systems channeling social benefits to households are also showing prominently the importance of mobile technology to improve payments accuracy, significantly reduce financial intermediation costs and reduce corruption in service delivery.

Technology-enabled social registries provide a single gateway for anyone seeking assistance by permitting easy determination of eligibility and access to different social programs. Technology-enabled case management systems (CMS) facilitate the referral of eligible beneficiaries to services that meet their needs. And digital payments help ensure benefits reach the right people, at the right time and in right amount, while fostering financial inclusion.

Digital technologies can also help reduce error, fraud and corruption in social protection payments more generally.

Some active labor market programs, notably intermediation services are also ready to improve their accuracy, using technologies that allow faster more accurate updates than current programs. Digital platforms can help deliver job-search assistance and skills training to more people. ICT development is not only creating immense opportunities for young entrepreneurs in MENA but it is also enabling e-work (such as remote employees and online freelancers).

Box I.7 (continued)

As the tools available to implementers (case managers, social workers, and job counselors) are upgraded and improved, policymakers also need to invest in the human resources and accountability mechanisms of social protection and labor delivery systems. The promise of technological progress in social registries, management information systems, profiling, and payment system can only be realized if implementers know how to use these tools—and are motivated and accountable—for the benefit of their clients.

Social protection programs face many challenges, notably in developing countries. Inadequate design, fragmentation and weak delivery systems result in multiple gaps as well as inclusion and exclusion errors that result in programs that are unsustainable and actually enhance inequality by overly benefiting the well-off.

In MENA countries, the predominance of energy and food subsidies over targeted social safety nets are notable examples. The use of public resources to finance the deficits of unsustainable public pension schemes is another classic example. While important progress has been made in reducing subsidies, especially in Egypt and Jordan, there has been little to no progress in substantive pension reforms.

Box I.8 The Promise of GovTech: How Digital Transformation Can Improve Governance

Governance and the quality of public services are major problems in the countries of the Middle East and North Africa (MENA). The region performs poorly in control of corruption, government effectiveness, and voice and accountability, according to the 2016 Worldwide Governance Indicators compiled by the World Bank. The result is low-quality and inefficient public services, as well as declining levels of trust in government. Improving the quality of public services will require making politicians, public servants, and providers accountable to citizens and promoting citizens' trust in and engagement with state institutions. By transforming institutions, policies and processes to make better use of data and new technologies, or investing in GovTech¹⁵, governments can increase the responsiveness, efficiency, and transparency of services they offer to citizens and businesses.

Citizens are also customers who increasingly expect seamless digital customer experiences. To achieve that requires a clear focus on the identification of core public sector problems that technology can help solve. It also requires foundational investments in whole-of-government approaches to connectivity and infrastructure, digital payments, and digital identity. This foundation creates the conditions for technologies such as internet of things (which links devices electronically), mobile, cloud, and data analytics—including machine learning and artificial intelligence—to help streamline or eliminate redundant processes, and enable new government capabilities, such as procurement.

Digital transformation can empower citizens' voice and participation and enable them to access services that may have been out of reach or costly to obtain. That is because digital services reduce the touchpoints between citizens and service providers, reducing the potential for corruption, discrimination and informal payments. Paired with digital or unique IDs, digitization can lead to better targeting and delivery of services, as well as identification of fraud or duplication of such things as pensions, social services and public procurement.

MENA countries already employ web-based or mobile applications to strengthen government responsiveness and citizens' trust—such as the Handasah mobile application and the Rassed system in the United Arab Emirates; the TALABI mobile application in Morocco; the “Smart Traveller” mobile customs application in Tunisia; and the Kollona Amn application in Saudi Arabia.

Research is beginning to show how digital technology enhances citizen voice and participation. During the Egypt Arab Spring in 2011, social media helped citizens coordinate and mobilize protests. The protests had a measurable effect: the values of firms with political connections fell after the protests, and these protests appeared to constrain those firms from rent-seeking behavior (using clout to get undeserved benefits).¹⁶ This form of social and political mobilization remains prevalent in Iraq, Morocco, Jordan and other countries of the region.

Ensuring digital transformation requires both investments in IT infrastructure and

¹⁵ GovTech refers to the digital capability that underpins modern government. It has two dimensions: the use of tech for more efficient, transparent, responsive service delivery and smarter policy-making; as well as the development of government as a data platform, to facilitate the emergence of the digital economy.

¹⁶ Acemoglu, Hassan and Tahoun, 2014. The Power of the Street: Evidence from Egypt's Arab Spring. NBER Working Paper 20665.

Box I.8 (continued)

complementary investments in regulations, skills and accountable institutions.¹⁷ Early evidence from the Organisation for Economic Co-operation and Development (OECD) showed that digital technologies enhance productivity growth when paired with those complementary investments.¹⁸ Failure to establish strong and effective regulations in important areas such as digital identification, data protection and cyber-security, can lead to systematic fraud, mistrust and less participation by citizens and business.

Governments can also learn from and collaborate with the private sector¹⁹ to better understand the risks and opportunities that emerge from disruptive technology. Awareness building and change management will also be important in increasing the take-up of digital solutions by governments and to overcoming cultural reluctance to adopt new technologies. In Moldova, for example, cultural aversion to digital usage results in only 3 percent of citizens accessing public services online, compared with 76 percent getting them in-person.

The economic impact of GovTech

Measuring the economic impact of digital government reforms and disruptive technology is challenging because there is no agreed definition of what constitutes a “digital economy” and there are no industry and product classifications for internet platforms and associated services. Evidence suggests that the digital sector is still less than 10 percent of most economies if measured by valued added, income or employment. In most of the countries in the MENA region, the digital economy accounts for between 1 and 8 percent of GDP, according to an October 2016 McKinsey & Company report, “Digital Middle East.”

Studies show that digitization can yield dividends in such areas as jobs, economic opportunities, inclusion, government and business productivity, trade, labor and skills. However, measuring these dividends in terms of GDP growth is a new area of study. Case studies show that indicators such as the digital ecosystem development index show a 0.13 per cent increase in per capita GDP growth in Colombia and a higher one in OECD countries.²⁰

Although a number of organizations are working on developing methods of measuring the effect of digital government—including the OECD,²¹ the U.S. Bureau of Economic Analysis and the International Monetary Fund—most of the evidence so far is anecdotal. So it is hard to assess what effect digital transformation can have on MENA countries. What is clear from anecdotal evidence from countries like China, Estonia, Korea, India, Singapore, and the United States is that investments in digital transformation in the public sector can bring more citizens online—to pay taxes or access public services—help create a better regulatory environment for and trust in digital payments, and create an ecosystem of private sector digital firms that service the public sector.

¹⁷ WDR 2016, Why digital dividends are not spreading rapidly and what can be done.

¹⁸ OECD (2004), The Economic Impacts of ICT - Measurement, Evidence and Implications, OECD Publishing, Paris.

¹⁹ Ready or Not, Disruption is Here, Excellence in Risk Management XIV, MARSH/RIMS, April 2017

²⁰ Katz, R. and Callorda, F. (2017) cited in OECD 2017. Estimación del impacto económico del crecimiento del ecosistema digital en América Latina. Paper submitted to the Tenth CPR-Latam conference, Cartagena de Indias, June 23

²¹ OECD 2017. Assessing the Impact of Digital Government in Colombia: Towards a New Methodology.

Box I.9 Digital Solutions in Public Procurement

Public procurement of goods, works, and services is at the core of translating public policy into tangible results for citizens—by delivering essential services, implementing projects and programs, and improving a country's governance, business, investment, and social environments.

In the Middle East and North Africa (MENA), as everywhere, citizens desire equal economic opportunity and inclusive development, more say in government decisions, a more responsive and effective public sector, and an end to corruption. The MENA governments must enhance transparency, participation, and social accountability in public sector management. Part of that effort is to reform and modernize public procurement.

Governments are at various stages of reforming their public procurement systems—including updating legal and regulatory frameworks, building the capacity of key actors, and facilitating the participation of different stakeholders in the public procurement ecosystem. They are also at one point or another of integrating digital solutions in public procurement (e-GP), which will dramatically enhance governance.

Electronic Government and Governance

E-government leverages information and communication technologies (ICT) to promote better governance in the public sector through government adoption of a digital platform and shared services to improve data exchange between agencies and to provide timely information and e-services to citizens and local companies and entrepreneurs seeking to do business with the government. Shared electronic services increase the effectiveness of governments, simplify access to information, stimulate the business environment through greater transparency, accountability, and collaboration, and foster a culture of trust, knowledge, and open government.

At the core of e-government is e-GP. Using e-GP—implementation of the procurement process through electronic means, particularly e-tendering, e-purchasing, and e-contract management—facilitates interactions and information exchange between the public and private sectors and is one of the main transformational dimensions of an e-government initiative. E-GP improves public financial management by enhancing transparency, accountability, and open government; supporting the development of the private sector, particularly by reducing barriers to participation by small- and medium-enterprises (SMEs); generating cost- and time- savings by increasing competition; and building the digital capabilities of citizens. E-GP can play a particularly crucial role in a region such as MENA, which faces a confluence of economic, social, and governance challenges rooted in lack of inclusion, opportunity, responsive service delivery and social accountability. Experience in MENA shows that ignoring those challenges results in social tensions and even instability. Confronting those issues through initiatives that promote inclusive governance and development is a global public good that can defuse tensions and contribute to peace and stability.

E-GP captures data throughout the procurement process, which can be made accessible to the public and analyzed. In MENA, improving transparency, accountability, and open government is particularly important given that the region ranks below the 50th percentile in all six categories measured by the World Bank's World Governance Indicators—voice and

Box 1.9 (continued)

accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law, and control of corruption (World Bank Governance Indicators, 2016).

Increasing opportunities for SMEs

The private sector, and particularly SMEs, benefit from e-GP. SMEs historically have been hampered in competing in public procurement markets because they often lack technical and financial capacity and access to information. They can also be blocked by elites who capture procurement markets. The time and cost required to prepare offers and the size of contracts are also barriers.

Digitalization of public procurement processes can facilitate the participation of SMEs in public procurement markets. Research shows that, when SMEs win public procurement contracts, they not only increase competition, they create jobs. Moreover, SMEs provide opportunities for youth, women, and members of other disadvantaged groups that SMEs disproportionately hire. Job creation is crucial because youth unemployment in the MENA region is the highest in the world, and rising, and the region will need an additional 300 million jobs by 2050. The governments of Morocco and Tunisia recognize the critical role SMEs play and each reserve 20 percent of the annual estimated value of public procurement for SMEs (OECD, 2016). Public procurement can also promote women's entrepreneurship and other gender policy objectives, critical in a region where the 26 per cent female labor force participation rate is far lower than in peer low- and middle-income countries.

E-GP generates cost and time savings by making administrative processes more efficient. It also enhances efficiency throughout the procurement process and minimizes the procurement cycle time. E-GP systems can save up to 20 percent of the cost of traditional paper-based systems. Such savings are particularly important because several MENA countries have unsustainable debt levels and are cutting public spending.

Workforce skills enhancement

A digitized economy requires a workforce that is able to keep pace with the rapidly changing ICT industry and foster sustainable growth. Electronic procurement helps endow workers with digital skills, essential in a region where job automation is a real challenge. (We Forum, 2017). Across the region, there are opportunities for jobs requiring digital skills. Investing in e-GP and adopting a culture of innovation can help build the skills of citizens and provide them economic opportunities.

Moreover, by combining e-GP systems with other digital technologies, countries stand to gain a lot. For example, the so-called Industrial Internet of Things (which links industrial processes electronically) can be combined with real-time analytics to gain deeper, more valuable intelligence to improve decision-making and identify potential problems and solutions. Cognitive systems, such as artificial intelligence, can be used in public procurement to handle transactional activities like help desks and play a role in strategic applications. Predictive and advanced analytics combine modeling, statistics, machine learning, and artificial intelligence with third-party data. The result is the ability to predict risks and enable anticipatory decision-making, among other things. Blockchain technology can provide the foundation for widespread automation by restructuring value chains (Nayak and

Box I.9 (continued)

Nguyen, 2018). For example, the United States has introduced blockchain and robotic-processing technology into public procurement processes, which has reduced the time of a contract award process from 110 to less than 10 days.

Broader issues

Governments can use digitization to address larger economic and social issues, such as delivering public services in a more efficient and effective manner, developing the private sector, particularly SMEs, creating a more globally competitive workforce and cross fertilizing knowledge, increasing transparency and accountability, and making smart policy decisions based on data and data analysis. Delaying digitalization will only widen the gap between leading economies and those that are lagging.

References

Nayak, N. and D. Nguyen, "Blockchain, AI and robotics: How future tech will simplify federal procurement," Federal Times, March 27, 2018.

OECD, Stocktaking Report on MENA Public Procurement Systems, 2016.

World Bank Governance Indicators for MENA, 2016.

World Economic Forum, "The Future of Jobs and Skills in the Middle East and North Africa," May 2017.

Box I.10. Regulating Tech Giants

The economic status quo in the Middle East and North Africa is replete with entrenched incumbents, often state-owned enterprises (SOEs), that have no incentive to serve consumers at scale with the quality level available in other parts of the world. At the same time, large numbers of workers toil in an informal economy that affords them little to no protection and is largely out of the purview of authorities.

This status quo makes it difficult for MENA countries to move to a digital economy, which can offer widespread benefits to workers and employers alike. But there is a strong possibility of leapfrogging to a new economy if political authorities in MENA countries act to create the capacity that would allow their countries to absorb the innovative technologies being developed globally.

Multisided platforms that allow two or more types of participants to engage in exchange transactions are disrupting many traditional industries worldwide, and if similar business models are adopted by MENA countries, they could help create the jobs that are needed to employ the tens of millions of young people who will enter the job market in coming decades. At the same time, authorities must be aware of the regulatory challenges that the emergence of powerful hi-tech firms might entail. That is, authorities must create an environment that harnesses the full positive potential of these firms while containing the risks they pose to competition, consumer protection, privacy and cyber-security.

In the information age, data is the essential raw material that allows digital platforms to develop algorithms (a set of problem-solving rules for a computer) that can efficiently match the needs of the types of agents they intend to serve—such as vacationers and hotels on online travel sites or riders and drivers on car-hailing sites. In addition, there are large-scale economies in algorithm development: the more data one has, the easier and faster it is to experiment with alternative formulas—constantly improving the matching technology in a self-feeding process. That means that there is a clear first-mover advantage in data driven industries. Moreover, there are major scale economies associated with data processing and direct and indirect network externalities that arise among the platform participants.

Tendency toward monopoly

All these technological characteristics mean that digital markets easily become dominated by few players. In addition, the personal data collected by different platforms might be used to tailor all sorts of services individually and to price discriminate accordingly. Because of this, platforms can progressively expand in many industries—as exemplified by the Indonesian GO-JEK platform, which started as a motorbike ride-hailing service and turned into logistics company connecting all sorts of additional agents—including such disparate services as car hailing, grocery and parcel delivery, medicine delivery, entertainment ticket sales, massage, and beauty. The platform also offers an e-payment facility. Being able to offer a wide portfolio of services can further strengthen the degree of market power enjoyed by digital platforms.

To keep the market power of digital platforms under check, MENA authorities should develop strong antitrust capabilities. Indeed, classic regulation based on price controls and structural breakups is difficult in a digital economy because technology changes so quickly that regulatory interventions would take so long that by the time of implementation they would be obsolete.

Box I.10 *(continued)*

In fast-evolving industries the best way to limit abuses of dominance (or, in U.S. antitrust jargon, monopolization attempts) is to ensure that low barriers to market entry are preserved. This means that the door must be left open for new entrants to offer their services and compete with already established companies, which enjoy such advantages as easier access to credit and loyal customers that make it hard, even for a newcomer that has developed a better technology. Competition authorities must ensure that the inevitable disadvantages of the new entrant are not compounded by unlawful strategies of the incumbent. Indeed, incumbents could adopt many practices (tying, exclusive dealing, loyalty rebates, predatory behavior) to prevent more efficient competitors from reaching the scale necessary to fully exploit their innovations and gain market share.

Incentive to compete

In addition, competition authorities must also make sure that new entrants keep their incentive to compete and are not enticed by the possibility of being acquired by the incumbents (so-called entry buyouts).

A second major competition risk is that through artificial intelligence (AI) and machine learning, algorithms could be used to sustain collusion without any human interaction—even in industries that do not display the structural characteristics that favor the emergence of tacit agreements (market concentration, entry barriers, stable or growing demand, symmetry in capacity or product range, existence of multi-market contacts, and higher frequency of purchases). Indeed, digitization could allow firms to signal their intentions, implement common policies, monitor and punish deviations from an agreement in a completely automated fashion. That possibility goes to the heart of how competition policy has always been applied, namely that tacit collusion has almost never been pursued because of the high risks of error in doing so.

At the same time, at least theoretically, AI could also become a tool for detecting cartels in such a context.

In addition to the antitrust dimension (market power abuses and collusion), personal data itself poses some specific regulatory issues. The first concerns the allocation of property rights over personal data between user and tech company. If the data belongs to the user, he or she must be allowed to take it with them if they change service provider. If it belongs to the platform, there is always the question of whether it is paying a fair price by giving away the app for free, or whether it should also monetarily compensate the user.

From an economic point of view, ownership of the data should hinge on how much the tech firm invested to collect and process the user's personal data. If it is substantial, to preserve incentives to innovate and avoid expropriation, the data should belong to the company—for example, hotel or restaurant ratings on online travel agency platforms, which cost the platform a lot to vet. On the contrary, if the process was sufficiently easy and inexpensive, then personal data should clearly belong to the user—for example, the reputations of drivers and passengers on ride hailing platforms or that of the retailers that sell through such platforms as Amazon or eBay. In practice, therefore, companies processing data should develop their software and algorithms in such a way that the raw personal data provided by users (or the personal information automatically generated through the use of an online

Box I.10 *(continued)*

service) can be easily separated from the features over which the company claims intellectual property rights.

A second major issue is privacy and the way tech companies share the personal data they obtain—either with their subsidiaries or with third parties. Indeed, confidentiality might be at risk, especially in extraordinary circumstances like bankruptcies, when creditors might want to monetize the value of the data assets that were never meant to be shared.

Authorities must take into consideration consumer protection. First, rules must ensure that users fully understand the use that will be made of the personal data they give to digital companies. Secondly, when platforms sell services, their rankings and suggestions should be made trustworthy by alerting consumers to whether there are potential conflicts of interest, such as higher commissions on the sales of specific brands. Similarly, social media providers should take effective actions to limit the spread of misinformation (often dubbed “fake news”).

Finally, the digital economy has created the need to protect users against cybercrime. Although platforms are investing substantial amounts of money to prevent data breaches, judging from their frequency (such as the theft of credit card data from millions of customers at large retailers), more needs to be done. Liability laws must be made more stringent so platforms internalize the huge damage suffered by victims of stolen personal information.

Part II.

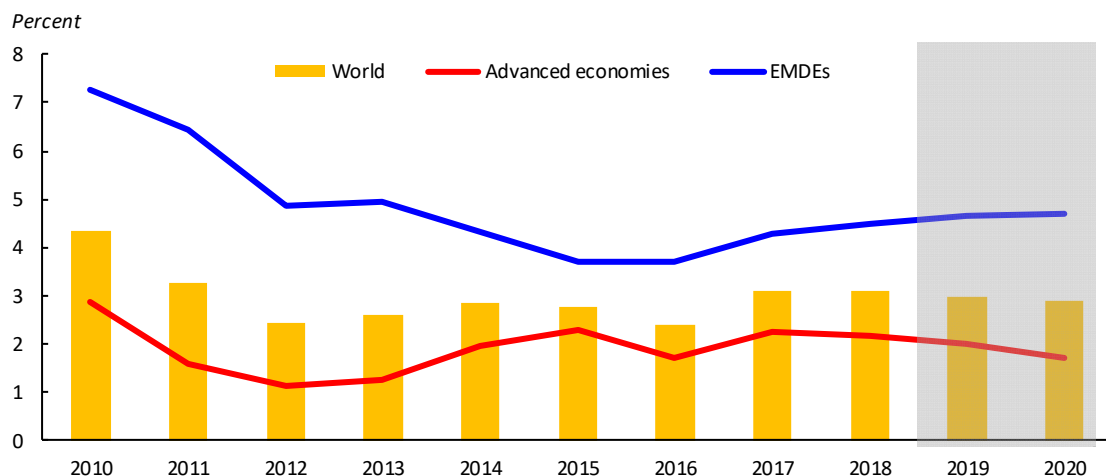
Recent Economic Developments and Outlook

Chapter 1.

Global Developments

The global economy is projected to grow by 3.1 percent in 2018 (World Bank, 2018a; Figure II.1), although there are recent signs that GDP growth may be slowing. Growth rates vary by region, with advanced economies projected to grow by about 2.2 percent this year, in part the result of additional fiscal stimulus measures in the United States. Amid continued monetary policy stimulus, growth is expected to remain at 2.1 percent in the Euro Area in 2018. The global recovery, particularly in Europe, should benefit the countries in the Middle East and North Africa (MENA), especially the oil importers, through higher non-oil trade, foreign direct investment (FDI), tourism, and remittance receipts. MENA's financial ties with the rest of the world are limited.

Figure II.1 Global growth outlook



Sources: World Bank data.

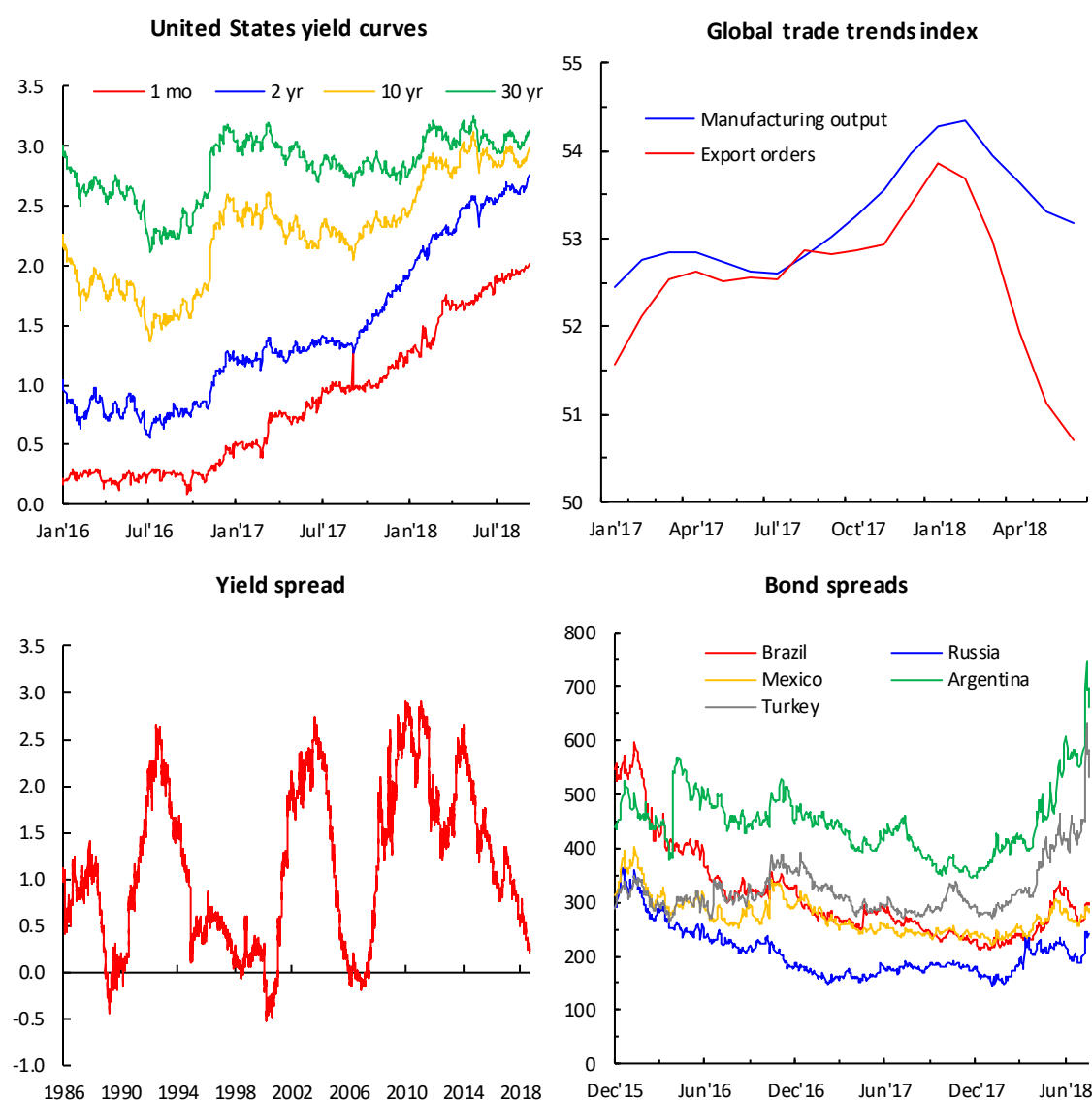
Note: EMDE stands for Emerging Market and Developing Countries.

Among emerging markets and developing countries, the slow recovery in commodity exporters will continue. Growth for this group of countries is projected to reach 2.5 percent in 2018, double its 2017 rate, as consumption and investment continue to recover. Growth in Russia has

remained stable, though slow. Economic activity in commodity importers continues to be strong as well. Growth in China will remain robust at 6.5 percent in 2018. MENA countries, especially the oil exporters, stand to benefit from strong growth in China, a key trading partner.

Nonetheless, there are mounting downside risks to the robust growth scenario. Some recent data point to a deceleration in activity. Monthly global manufacturing and new export orders have been declining since the beginning of 2018 (Figure II.2 top right panel).

Figure II.2 Developments in the international markets



Sources: J.P. Morgan; International Finance Corporation Global Macro & Market Research, US Treasury, Federal Reserve Bank of St. Louis, and World Bank 2018c.

Note: Yield spread is calculated as 10-year treasury constant maturity minus 2-year treasury constant maturity. Global trade trend index is calculated as 3-month average, and an index equal or above 50 indicates an expansion.

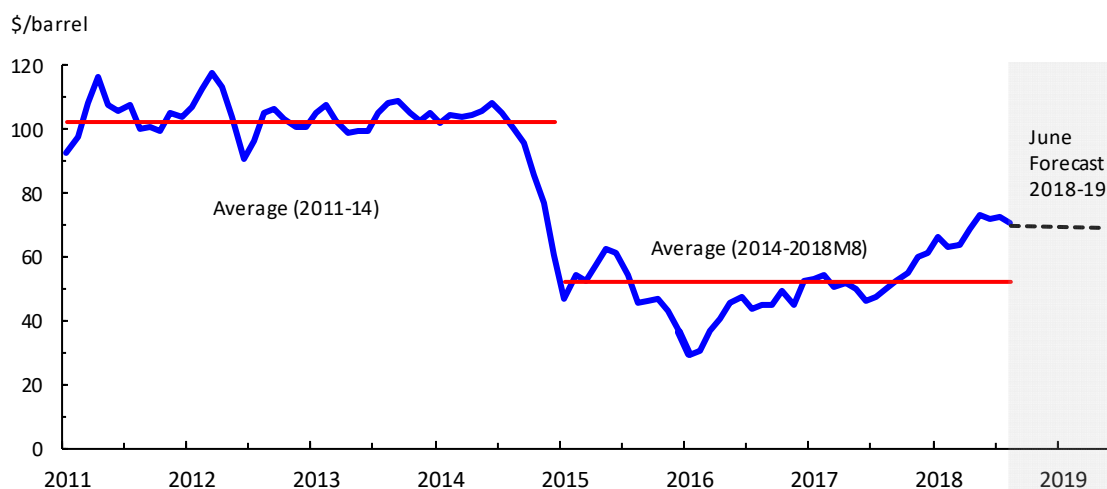
Many emerging markets and developing countries—including Turkey, Argentina, and Indonesia—have experienced currency depreciations, financial volatility, and rising borrowing

costs that make them more vulnerable to shocks (Figure II.2 bottom right panel). Increasing global interest rates, combined with a renewed strength of the U.S. dollar, have made it harder for emerging markets and developing countries to borrow externally. A typical harbinger of tightening global financial conditions is the difference (spread) between the usually higher rate on the 10-year and the usually lower one on 2-year U.S. Treasury securities. When uncertainty rises, investors seek refuge in secure long-term U.S. Treasury securities (Figure II.2 top left panel) driving down the rate relative to the shorter-term security (that is, the yield curve flattens). The spread has been declining since early 2014, when it was more than 250 basis points (a basis point is 1/100th of a percentage point). At the end of August 2018, it was 22 basis points (Figure II.2 bottom left panel). Historically, U.S. recessions have been preceded by an inverted yield curve—when short-term rates are higher than long-term ones.

Against this backdrop, global growth is forecast to ease over the next two years—to about 2.9 percent—as trade and investment moderate and financing conditions tighten (World Bank 2018b). Growth in advanced economies is forecast to decelerate to 1.7 percent in 2020 due to growth moderations in the United States, Euro Area, and Japan, following several quarters of above-potential growth. Emerging markets and developing economies are expected to maintain their robust performance and to grow at 4.7 percent in 2019 and 2020 (Figure II.1).

Risks to the global outlook are tilted to the downside. These include increased trade protectionism; elevated economic policy uncertainty; the possibility of financial market disruptions; and, over the longer term, weaker potential growth. Recently announced tariff increases by the United States and retaliatory measures by its trading partners dampen the prospects of a global recovery by reducing trade, hurting investor sentiment and raising global financial volatility. If the disputes between the United States and its trading partners result in a trade war, the global economic recovery could be derailed.

Figure II.3 Developments in oil prices



Source: World Bank.

Notes: Average of Brent, Dubai, and WTI. Last observation is August, 2018.

The oil price outlook remains subdued due to multiple shocks. In the first five months of 2018, strong consumption growth, supply cuts, and geopolitical sanctions from reinstated U.S. sanctions on Iran boosted oil prices 11 percent—from \$66 per barrel (bbl) in January to \$73.40/bbl in May. The World Bank has raised its 2018 oil price forecast to an average of \$70/bbl (up \$12/bbl from its January forecast) and to \$69/bbl in 2019 (up \$10/bbl). Still, prices

are about 40 percent below their 2011-14 average and the prospects of returning to those high levels are slim (Figure II.3).

Several countervailing factors could influence oil prices. First, is the possibility of a slowdown in the global recovery and uncertainty about investment and consumption—driven by trade tensions—that could hurt global oil demand. On the other hand, the U.S. sanctions on the Iranian oil sector in November could reduce Iranian oil exports by several hundred thousand barrels per day. Unless the output decline is matched by an increase from another oil exporter country notably Saudi Arabia, the oil market would be undersupplied, putting upward pressure on prices. New sanctions could also put upward pressure on prices because of uncertainties about shipping oil through the Middle East's vital trade route. Another factor that could push up prices is the recent U.S. ban on exports of sensitive goods and oil-sector technologies to Russia and the imposition of sanctions on Venezuela's oil sector. Both could reduce oil production, increasing the risk of an undersupplied oil market if oil demand does not fall. Rising geopolitical tensions in major oil-producing countries—including Libya, Iraq, and Angola—could cause volatility and oil price fluctuations.

There are substantial upward and downward risks in the oil price forecast. An increase in volatility in the oil markets would hurt both MENA's oil-producing economies and its oil-importing economies, which rely heavily on external financing from oil exporters.

Chapter 2.

Middle East and North Africa

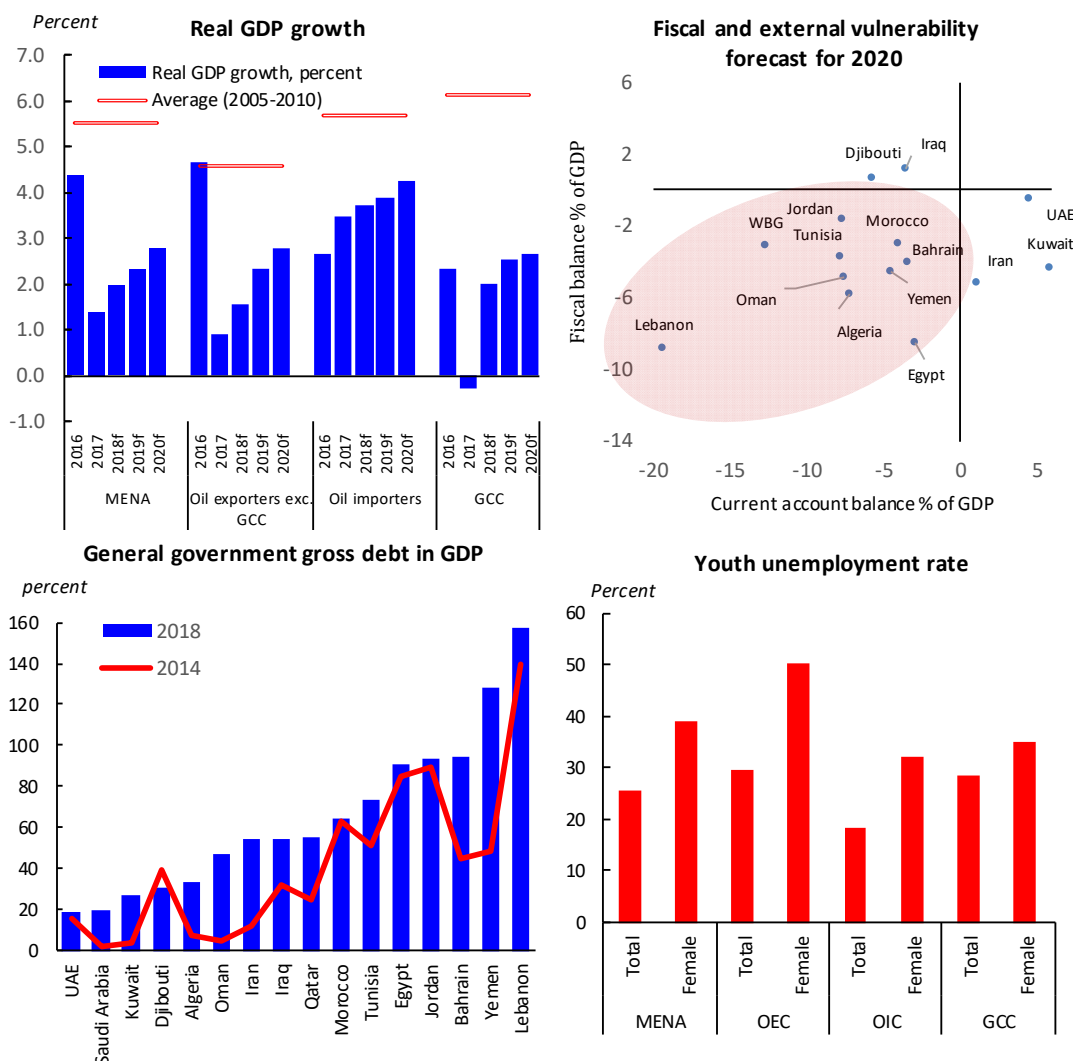
Economic growth in the Middle East and North Africa (MENA) region is expected to rebound to an average 2 percent in 2018 from an average 1.4 percent in 2017. The recovery is led by better than expected economic growth in Gulf Cooperation Council (GCC) countries, where a contraction in growth (-0.3 percent) in 2017 will turn in to an estimated 2 percent GDP growth in 2018 (Figure II.4 top left panel). The mild rebound in regional growth reflects the positive impact of reforms and stabilization policies undertaken in many countries in tandem with the recent pick up in oil prices and oil production and rising external demand (Table II.1). The growth forecast for MENA, however, is lower than the projection in the April MENA Economic Monitor (World Bank 2018c). Estimates for growth in 2017 and 2018 were higher in April and are revised down by 1 percentage point because of the possible adverse effect of the resumption of US sanctions on the Iranian financial sector and oil exports, which were lifted two years ago, and the extension of the 2017 “OPEC +” production cut into 2018. The group of oil exporters—both members and nonmembers of the Organization of the Petroleum Exporting Countries (OPEC)—have reduced total supply of oil by average of 1.8 million barrels a day with a compliance rate of 94 percent over this period.

While overall growth appears robust, the pace of the recovery in the region is still sluggish and the growth forecasts of about 2 to 3 percent are well below the high rates that prevailed between 2005 and 2010. Much higher growth rates are needed to create enough jobs for the millions of new job seekers coming to the market every year. Even during the high growth rates of 2005-10 (Figure II.4 top left panel), youth unemployment in the MENA region rate averaged 24 percent—and was much higher for women. Conversely, the current growth momentum could be an opportunity for MENA governments to speed up the pace of policy and institutional reforms that build human capital and improve the business environment. Such reforms would stimulate investment and private sector activity, which will promote inclusive growth in the medium term.

Digital innovations have the potential to build new drivers of economic growth, increase human and capital productivity, and distribute the benefits of growth more evenly among every segment of the society. Technology-led transformation in the services sector—including e-commerce, e-health, e-payment, and e-education platforms—is the key to unlocking private

sector potential and creating millions of jobs for young people in MENA (World Bank 2018c).²² In part I of this report, we discussed a vision for MENA's new economy that embraces innovation and entrepreneurship.

Figure II.4 Economic outlook and challenges in MENA



Sources: International Labor Organization; International Monetary Fund; World Bank; World Tourism Organization; and World Bank staff estimates.

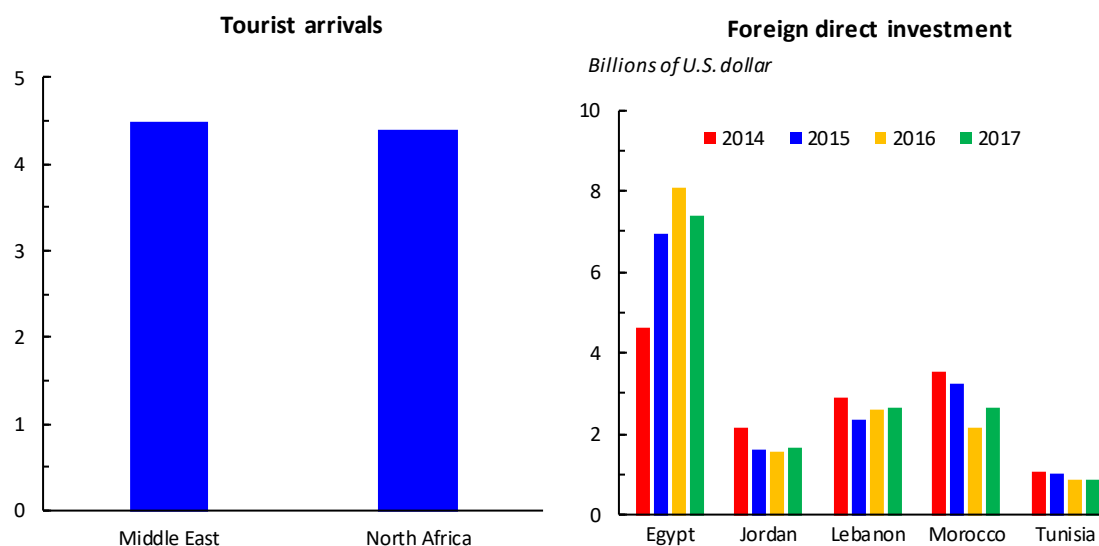
Notes: e stands for estimate and f for forecast. Youth unemployment rate is calculated as unemployment rate in percentage of total population of ages 15 - 24 in 2017.

The overall fiscal and external positions in MENA are expected to improve in 2018. The large fiscal deficit of about 10.7 percent of GDP (about \$329 billion) in 2016 is projected to narrow significantly in 2018, reaching 4.5 percent of GDP (about \$155 billion), partly due to fiscal

²² E-commerce platforms are clear examples of ways to create massive job opportunities across the region. Alibaba Group estimated that its China online retail platforms alone created 30 million job opportunities, especially for youthful entrepreneurs, rural communities and disadvantaged groups (Aliresearch 2017).

consolidation measures adopted by MENA governments to contain current expenditures—including reducing energy subsidies, freezing public hiring, and diversifying nonoil revenues. The nearly \$180 billion the governments, predominantly oil exporters, have saved increases fiscal space, giving enabling the governments to continue economic reforms.

Figure II.5 Foreign inflows in MENA



Sources: United Nations World Tourism Organization, *World Tourism Barometer*, June 2018; and United Nations Conference on Trade and Development.

Notes: Tourist arrivals are calculated as percentage change in 2018Q1 over the same period last year.

The current account deficit of about 4.4 percent of GDP in 2016 will turn into a surplus of 1.9 percent of GDP in 2018. The improvement reflects increases in oil and nonoil receipts, especially among oil exporters, due to the recovery in oil prices, tourism, and remittance receipts. Estimates by the UN World Tourism Organization show that tourism receipts rose in 2017 by 13 percent to \$68 billion in real terms. The increase mainly reflects the recovery of Egypt and strong results in Tunisia, Jordan, and Lebanon. The robust recovery in international arrivals continued for most MENA countries in 2018 (Figure II.5). In North Africa, Tunisia had a 21 percent increase in tourist arrivals during the first quarter of 2018. Morocco, by contrast, had a slight decrease—but that followed strong results in 2017. Egypt is enjoying a continued rebound, with a 33 percent increase in arrivals in the first quarter, as is Oman, where international arrivals were up 19 percent. International arrivals in Lebanon grew 3.3 percent in the first half of 2018, and the United Arab Emirates (Dubai) registered a 1 percent increase during the same period. Tourism revenue in Saudi Arabia is expected to increase by 16 percent this year relative to a year ago.

Strong growth in Europe increased remittances to the Maghreb countries in 2017. World Bank estimates show that remittance inflows to MENA grew by around 12 percent in 2017, following a two-year decline. The main factors were a 20 percent increase in remittances to Egypt, to \$20 billion. Morocco (\$7.4 billion) and Tunisia (\$1.9 billion) each had a 5 percent growth in remittances. Remittances to Jordan grew by 1 percent (\$4.4 billion) and to Lebanon grew by 5 percent (\$7.9 billion) in 2017. Remittances account for 18 percent of Lebanon's GDP and 8 percent of Jordan's. Rising remittances and FDI to the MENA region are expected to continue

in 2018 (Figure II.5 right panel). Egypt expects to attract \$11 billion in FDI in the 2018-19 fiscal year, up from \$7.4 billion a year ago.

Outlook

Economic growth in the MENA region is forecast to improve modestly in 2019-2020—reaching 2.3 percent in 2019 and 2.8 percent in 2020 (Figure II.4 top left panel). The upswing in growth is led by significant improvement in economic activity among both oil exporters and oil importers. Growth forecasts largely reflect the slowing pace of fiscal adjustment, increasing reconstruction spending in conflict-affected countries, notably Iraq, the end of the two-year production cut among several oil exporters, economic reforms, and the mild recovery in external demand. Oil exporters will significantly benefit from relatively high oil prices, higher oil production, reforms, and a possible rise in the external demand. Oil importers are expected to benefit from reforms, rising trade with the Europe and China, and financial inflows from MENA oil exporters. Nevertheless, the overall growth rates in oil exporters and oil importers are below the levels seen during 2005-10 (Figure II.4 top left panel).

It is expected that the total fiscal deficit of MENA will narrow to 3.1 percent of GDP by 2020 (Table II.1). Oil exporters, including GCC countries, are expected to see a significant improvement in their fiscal imbalances as oil prices rise, oil production increases modestly with the end of the “OPEC +” agreement, and efforts to diversify revenues away from oil have some success. Oil importers—Djibouti, Egypt, Jordan, Tunisia, Morocco and West Bank and Gaza—will also have slight improvements in their sizeable fiscal deficits in 2019-20 due to recent reforms and stabilization policies. MENA’s current account position is expected to improve significantly and register a surplus of 1.4 percent of GDP in 2020, after several years of deficit, as a result of rising remittances, tourism, and oil and non-oil export receipts. Nevertheless, fiscal and external accounts of a large number of countries are estimated to remain in negative territories in 2020 (Figure II.4 top right panel).

Within MENA, *growth in oil exporters* is expected to average 2.2 percent in 2019-2020, more than double the 2017 rate. Growth prospects for the group of GCC oil exporters are projected to improve over the projection period. Higher growth in GCC countries is the key driver of an improved outlook for the oil exporters. Saudi Arabia’s economy, which experienced a contraction in 2017, will return to growth—exceeding 2 percent in 2020. In the United Arab Emirates, growth will exceed 3 percent (up from 2 percent in 2017) by the end of the decade. The planned reversal of “OPEC +” mandated production cuts after 2018, an oil price recovery, improved oil production capacity, and recent stabilization policies and reforms including the introduction of a 5 percent value-added and other tax changes, and reduction of fuel subsidies are expected to contribute positively to the economic recovery in the group.

Table II.1 MENA macroeconomic outlook, 2016 –2020

	Real GDP Growth, %					Fiscal Balance, % of GDP					Current Account Balance, % of GDP				
	2016	2017	2018e	2019f	2020f	2016	2017	2018e	2019f	2020f	2016	2017	2018e	2019f	2020f
MENA	4.4	1.4	2.0	2.3	2.8	-10.7	-6.3	-4.5	-3.6	-3.1	-4.4	-1.3	1.9	1.5	1.4
Developing MENA	6.9	3.4	1.9	2.0	2.8	-9.5	-6.0	-6.1	-5.7	-5.4	-5.4	-3.8	-3.4	-3.7	-3.4
Oil Exporters	4.7	0.9	1.6	1.9	2.4	-11.0	-5.8	-3.7	-2.8	-2.2	-3.6	0.5	4.1	3.5	3.4
GCC	2.3	-0.3	2.0	2.5	2.7	-11.9	-6.6	-2.9	-1.5	-0.7	-3.4	1.2	7.2	6.8	6.5
Bahrain	3.2	3.9	3.2	2.6	2.8	-17.9	-12.9	-5.0	-4.8	-4.0	-4.6	-4.5	-2.8	-1.9	-3.4
Kuwait	2.9	-3.5	1.5	3.1	3.1	-13.9	-9.0	-5.9	-4.9	-4.4	-4.6	5.9	10.6	7.8	5.9
Oman	5.0	-0.9	1.9	3.4	2.8	-20.9	-13.7	-6.4	-5.2	-4.9	-18.7	-15.1	-9.8	-8.8	-7.6
Qatar	2.1	1.6	2.3	2.7	3.0	-4.7	-1.6	2.3	2.9	2.9	-5.4	3.6	7.4	7.6	7.9
Saudi Arabia	1.7	-0.9	2.0	2.1	2.2	-17.2	-9.0	-4.1	-1.9	-0.5	-3.7	0.0	9.8	9.7	9.5
United Arab Emirates	3.0	0.8	2.0	3.0	3.2	-2.4	-1.8	-1.4	-0.8	-0.5	1.4	4.6	5.3	5.1	4.4
Developing Oil Exporters	9.5	3.4	0.7	0.7	1.9	-9.5	-4.5	-5.1	-4.9	-4.9	-3.8	-0.6	-1.5	-2.3	-2.0
Algeria	3.3	1.6	2.5	2.3	1.8	-13.6	-9.0	-6.9	-5.8	-4.5	-16.7	-12.8	-8.5	-7.2	-5.9
Iran, Islamic Rep.	13.4	3.8	-1.5	-3.6	1.1	-2.2	-1.8	-4.7	-5.2	-4.8	3.9	3.5	0.6	0.0	1.1
Iraq	13.0	-2.1	1.9	6.2	2.9	-14.2	-1.4	1.2	1.1	-1.1	-9.0	1.2	2.1	-1.2	-3.5
Libya	-2.8	26.7	7.2	6.8	2.5	-81.2	-34.5	-25.9	-22.6	-20.0	-18.0	2.5	-2.9	-5.0	-5.4
Syrian Arab Rep.	1.7	...	...	...	...	-18.2	...	...	...	...	-2.9	...	...	...	...
Yemen	-13.6	-5.9	-2.6	14.7	13.0	-8.9	-4.7	-10.7	-4.5	-1.4	-5.1	-4.0	-9.3	-7.4	-4.5
Developing Oil Importers	2.7	3.5	3.7	3.9	4.3	-9.5	-8.1	-7.5	-6.7	-6.1	-7.5	-8.1	-6.0	-5.4	-5.1
Djibouti	8.6	5.7	6.7	7.3	7.5	-16.7	-0.5	0.6	0.9	1.2	-13.3	-11.3	-9.9	-7.8	-5.7
Egypt, Arab Rep.	4.3	4.2	5.3	5.6	5.8	-12.5	-10.9	-9.8	-8.5	-7.5	-6.0	-6.6	-3.2	-3.0	-3.0
Jordan	2.0	2.0	2.1	2.3	2.4	-3.2	-2.2	-1.8	-1.7	-0.7	-9.5	-10.7	-9.6	-8.6	-7.7
Lebanon	1.7	1.5	1.0	1.3	1.5	-9.2	-6.6	-8.3	-8.9	-9.2	-20.3	-23.1	-21.4	-20.0	-19.2
Morocco	1.1	4.1	3.2	2.9	3.5	-4.3	-3.6	-3.3	-3.0	-3.0	-4.2	-3.6	-4.3	-4.0	-4.0
Tunisia	1.0	2.0	2.4	2.9	3.4	-6.0	-5.9	-5.2	-3.7	-2.5	-8.8	-10.5	-9.6	-8.6	-7.8
West Bank & Gaza	4.7	3.1	1.7	1.9	1.9	-4.0	-3.1	-3.7	-3.1	-2.6	-13.9	-10.6	-11.9	-12.4	-12.6

Source: World Bank data. Note: e = estimate, and f=forecast. Data for Egypt correspond to the fiscal year (July-June). Due to lack of data for Syria, regional and subregional averages may not be comparable over time.

The large fiscal and current account deficits in the GCC following the 2014 oil price collapse are projected to shrink significantly in 2020 (Table II.1). Although the governments have implemented reforms in several areas including subsidies and non-oil revenue collection, they have not undertaken significant changes in public sector compensation. Public debt will likely remain elevated as current expenditures, especially those related to wages and benefits in the public sector, have been rising. Last year, Saudi Arabia reversed public sector pay cuts and reinstated bonuses for civil servants and military allowances last year. Rising oil prices and associated improvements in the fiscal and current account deficits could weaken the appetite for difficult reforms including addressing the high public-sector employment and wage bills and tempt policy makers to return to pro-cyclical policies.

A slowdown in the Iranian economy is expected to hold growth in non-GCC oil-exporting countries below 1 percent in 2019, before it picks up to 1.9 percent in 2020 (Table II.1). After steadily growing in 2017, economic activity in Iran (the largest economy in terms of GDP in the group) is forecast to contract by 1.5 and 3.6 percent in 2018-19 because of an anticipated fall in oil exports and consumption and a contraction of the oil sector. The U.S. sanctions on the oil sector that will take effect in November have forced some of Iran's major trading partners to reduce importing Iranian oil and many foreign firms to cut off business with Iran (Box II.1). The value of the Iranian currency has dropped sharply in the unofficial market since April due to the confusion over monetary policy giving rise to inflationary expectations. It is expected that annual inflation rate will exceed 30 percent on average in 2019, up from 9.6 percent last year. The depreciation of the currency could help improve non-oil exports, but not enough to offset the loss of oil exports. The Iranian economy is more diversified than other oil exporters in the region, but oil still accounts for 40 percent of the government's revenues and export receipts and the resumption of the US sanctions could exacerbate fiscal and external imbalances in the short term. During the previous round of sanctions, Iran's oil exports were cut by 1.2 million barrels a day (mb/d) in 2014-16.

Post-conflict recovery and reconstruction investment will remain the driving force of the Iraqi economy in the coming years, following the overthrow of the Daesh group. The World Bank estimates the cost of reconstruction at \$88 billion. Overall economic growth in Iraq will recover modestly in 2018, sustained by improved security conditions and higher oil prices. It should pick up markedly in 2019 due to higher oil production. Iraq's non-oil economy will strongly rebound and remain positive as the reconstruction process kicks off. The fiscal position will continue to improve as higher oil prices feed through to higher revenues, allowing space to finance reconstruction, if the country continues steps to contain the deficit and debt accumulation. Political uncertainty following the elections in May 2018, however, could delay reconstruction efforts, which would impair economic growth and job creation.

Growth in Algeria is expected to remain steady at above 2 percent on average through the end of the decade, a rate that has proved insufficient to create enough jobs for the large pool of unemployed youth (Figure II.4 bottom right panel). The twin deficits will improve in 2019 and 2020, if the expected economic reforms—such as removal of subsidies and improvements in the business environment—are implemented.

The rest of the countries in this group are still mired in conflict, rising insecurity, and political uncertainty. Recovery and reconstruction efforts that are expected to pick up later in Yemen, Libya, and Syria could improve economic performance in these countries if necessary reforms are in place.

Fiscal and current account balances in this group of countries, except for Iran, are expected to improve through 2020 and turn in to surplus in Iraq if security conditions improve and political uncertainty diminishes. Fiscal adjustments, rising oil prices, and oil production—combined with a rebound in foreign receipts—are expected to contribute to the positive turnaround.

Economic growth among *MENA's oil importers* is expected to increase to 4 percent on average in 2019-2020, nearly half a percentage point higher than in 2017. The main contributor to the recovery in this group of countries—Djibouti, Egypt, Jordan, Lebanon, Morocco, Tunisia, and West Bank and Gaza—is Egypt's sharp rebound in economic activity and steady growth in Djibouti (Table II.1). Sustained export growth and an increase in tourism and remittance inflows are expected to outpace an increasing energy import bill due to higher oil prices. It is expected that the twin deficits for oil importers will improve slightly by the end of the decade, helping the governments implement reforms that are needed to meet the challenge of chronically high unemployment rates (Figure II.4 bottom right panel).

Egypt's economy is recovering, after years of declining growth, rising debt, and widening fiscal and current account deficits. Recent reforms—including the liberalization of the exchange rate, rationalized subsidies, and increased social protection for the poor—have strengthened growth and helped accumulate adequate foreign reserves. Egypt's growth is projected to accelerate from 5.6 percent in 2019 to 5.8 percent in 2020, outperforming other oil importers. The burst in growth is mainly the result of a recovery in consumption and private investment and a rebound in merchandise exports and tourism. Among other oil importers, Tunisia's economic growth is expected to gain steam. After doubling to 2 percent in 2017, economic growth is expected to accelerate to 3.4 percent in 2020—supported by agriculture, tourism, and export-oriented manufacturing—mainly the electrical and mechanical industries. The Moroccan economy relies heavily on agricultural output and remains vulnerable to the risks of climate change. Growth in Morocco will continue above 3 percent on average over the projection period.

Besides the ongoing refugee crisis that has taken its toll on the economies of Lebanon and Jordan economies, delays in the cabinet formation and a decline in construction activity due to lower bank lending in Lebanon are preventing growth from reaching its potential. Jordan has maintained a contractionary monetary stance in the first half of 2018, as part of efforts to maintain an attractive risk premium over US rates. Exchange market pressure, high dollarization rates and low foreign inflows have been imposing downward pressures on Jordan's foreign reserves. Growth in Lebanon and Jordan is not expected to surpass 1.5 and 2.4 percent respectively in 2020, well below the 6 percent average growth rate in between 2005 and 2010—before conflict began in the region. Economic growth in the West Bank and Gaza is forecast to remain around 2 percent, driven by activity in the West Bank while Gaza continues to deteriorate. Living conditions have worsened, almost one-third of the labor force unemployed.

Risks and challenges

MENA countries face several challenges, that if not addressed, could deter economic recovery and hamper long-term growth prospects. These include the lackluster pace of reforms, a temptation to return to pro-cyclical fiscal policies (Box II.2), and high unemployment rates among youth and women (Figure II.4 bottom right panel). Rising debt levels across MENA countries also could drag down growth prospects.

Risks to the MENA outlook are rising. The upside risks include rising reconstruction spending in war-torn countries—first in Iraq, then in Libya, Yemen, and Syria—and investment in physical and soft infrastructure, such as broadband internet and mobile phones, that could enhance the prospects of a sustained economic recovery and inclusive growth in the region. This could unlock the potential for higher growth and much-needed job creation among youth in the region.

Conversely, the loss of momentum in implementing economic reforms and stabilization policies across MENA could adversely affect growth potential. A worsening security environment and rising geopolitical risks in the region could also slow the rebound in tourism, remittances, and FDI, which are significant sources of service sector jobs and foreign exchange revenue for MENA oil importers. Rising public and external debt levels resulting from years of weak current account and fiscal positions could drag growth prospects. Lack of counter-cyclical fiscal policy during the commodity price boom, followed by a slow fiscal adjustment after the commodity price shock led to steep increases in public debt. Economies experiencing the largest increases in public debt-to-GDP ratios in the last few years include Bahrain, Egypt, Jordan, Lebanon, Oman and Qatar.

On the international front, the risks are almost all to the downside. Rising international interest rates could limit most MENA countries' access to international finances, especially those with high levels of debt (Box II.3).

In addition, the rise in the U.S. dollar since April that has put at risk several emerging and developing countries with large debt, could affect highly dollarized MENA economies, notably Lebanon. Recent volatility in emerging markets such as Turkey should be closely watched—especially for MENA countries that have economic ties with Turkey (Box II.4). Potential protectionism and trade wars could drive down commodity prices, including oil prices through tighter demand. Copper and zinc prices, for example, have fallen sharply since June, as trade tensions between the United States and China intensified. Because China's share of world commodity consumption has been rising rapidly, a slowdown of the Chinese economy would hurt commodity prices including oil. Chinese oil consumption in 2017 was 12.8 million barrels a day, about 13 percent of world oil consumption. Nonetheless, MENA countries have been largely immune from the ongoing emerging market volatility and escalating trade tensions as they have limited trade and financial exposures to the global economy.

References

- World Bank (2016) "Global Economic Prospect January 2016: Spillovers amid Weak Growth" Washington D.C.
- World Bank (2018a) "Global Economic Prospects, June 2018: The turning of the Tide?" Washington, DC.
- World Bank (2018b) "Global Monthly July 2018" Washington D.C.
- World Bank (2018c) "MENA Economic Monitor, April 2018: "Economic Transformation" Washington, DC.

Box II.1 The Impact of the U.S. Sanctions on the Iranian Economy

While there is uncertainty of the impact of US sanctions, depending on the reactions of other trading partners, the U.S. sanctions on Iran announced on August 7 and the subsequent oil sanctions which will take effect in November could exacerbate the vulnerabilities and macroeconomic challenges of the Iranian economy. Domestically, the coming US oil sanctions are expected to cut oil exports by hundreds of thousands of barrels a day, reducing the government's revenue. The fall in oil revenues, which are still a major source of government funds, could worsen macroeconomic, fiscal and external imbalances and could spark a recession in 2018 and 2019. Economic activity is estimated to contract by 2.5 percent on average over the next two years, aggravating unemployment, inflation, and poverty rates. The sharp fall in the value of the Iranian currency in the unofficial market, rising inflationary pressures, and high unemployment rates, especially among youth—estimated at 30 percent in 2018 by the World Bank and International Labor Organization— could lead to stagflation if Iran does not take effective counter measures.

Furthermore, the U.S. sanctions could delay the development plans of the National Iranian Oil Company's (NIOC). The development of Iran's energy industry has been hampered for decades by underinvestment and a lack of access to technology, which would worsen under sanctions and could prevent NIOC from achieving its production growth goals. Geopolitically, the U.S. sanctions may increase Russian and Chinese involvement in the development of Iran's oil and gas sector. The Iranian government is developing a long-term energy strategy to minimize the risk of any future sanctions, which might moderate some of the effects of the U.S. sanctions on the Iranian oil industry.

While it is highly unlikely that U.S. sanctions can remove the total of 2.2 million barrels of crude oil Iran exports, the sanctions will, at a minimum, create logistical difficulties for Iranian exporters, cause reductions in oil export volumes, and may ultimately lead to losses of production volumes by delaying needed investment.

The complex geopolitical, economic, and logistical considerations involved make it difficult to predict how much Iranian oil will ultimately come off the market; estimates vary widely. This comes at a time when global oil markets are tight due to a combination of intentional supply cutbacks and unplanned disruptions in some major oil producers. Further reductions in oil supply could increase volatility and result in higher international oil prices. Higher oil prices in turn could benefit the Iranian economy and partially compensate for revenues lost due to the reduction in oil exports.

Sources: World Bank staff estimates and Center for Strategic and International Studies (CSIS), August 2018.

Box II.2 Rising Oil Prices and the Fate of Subsidy Reforms in MENA

The recent rebound in oil prices presents MENA oil importers and oil producers with a critical test that will determine the region's future economic trajectory. All MENA countries have long depended on energy subsidies to provide social protection and, in the case of oil exporters, to spread the benefits of resource wealth. According to the International Monetary Fund, the region's total pre-tax energy subsidies amounted to nearly \$240 billion in 2011 – equivalent to 22 percent of government revenue, and nearly half of all global energy subsidies. Yet, in recent years, especially since oil prices began to decline in 2014, MENA countries have been working to wean consumers and businesses off subsidized energy, while seeking to modernize and diversify their economies.

MENA governments that took advantage of falling oil prices to reduce budget-busting fuel subsidies face a difficult dilemma. The long-term consequences of abandoning critical and difficult reforms could far outweigh any short-term benefits. For now, rising global oil prices will cause domestic prices to rise as well, unless governments use subsidies to limit the pass-through to local consumers. But while that approach might prevent aggregate demand and energy consumption from falling in the short run, it would also increase public-debt levels and leave fewer resources to invest in private-sector development and broader economic transformation. Even if governments relied on spending cuts elsewhere to pay for the subsidies, the net result could be negative, even in the short run. For example, if they reduce transfers to low-income households, they would impose further hardship on some of their most vulnerable citizens. In addition, fuel subsidies could benefit the rich more than the poor. Because better-off households consume more fuel and electricity than lower-income households, they capture most of the funds allocated to universal subsidies—which are calculated per unit of fuel or electricity consumption regardless of income. Governments could use fiscal savings from subsidy reforms to expand and strengthen social safety nets, thereby protecting the poor while enabling the economic dynamism needed to give the poor a chance to escape poverty.

In principle, smart energy reforms combined with well-targeted compensation schemes could still yield some fiscal savings while protecting vulnerable groups. But this is not an easy balancing act—not only because of the existence of potential losers from subsidy reforms, but also because the reforms require skilled management of public opinion with respect to the costs and benefits of the reforms. If the short-term challenges posed by rising oil prices are carefully managed, the combination of thriving private sectors and strong social safety nets would encourage risk-taking and entrepreneurship—both of which amount to powerful engines of long-term growth.

Box II.3 The Impact of Rising U.S. Interest Rates on MENA Economies

While MENA is the world's least financially integrated region, the rise in global interest rates could directly or indirectly affect the economies in the region. Historically, several MENA countries have contained inflation by pegging their currencies to a low-inflation currency, such as the U.S. dollar. Therefore, an increase in interest rates by the U.S. Federal Reserve (Fed) could directly impact their economies, because the countries have to raise domestic interest rates when the Fed does. Tightening monetary policy could hamper economic activities when an economy is recovering from low growth rates. In countries with pegged exchange rate regimes—including Oman, Qatar, Saudi Arabia and the United Arab Emirates—a rise in U.S. interest rates translates to higher borrowing costs for households, governments, and firms.

The Fed's decision to raise the policy interest rate (the so-called Fed funds rate) also affects these economies indirectly through higher borrowing costs in the international financing market. Project financing becomes more expensive, causing delays in national projects that require international partnerships. In countries with high debt levels and a dollarized economy, such as Lebanon, a rise in the Fed funds rate increases the government's fiscal burden, which could be a drag on economic growth.

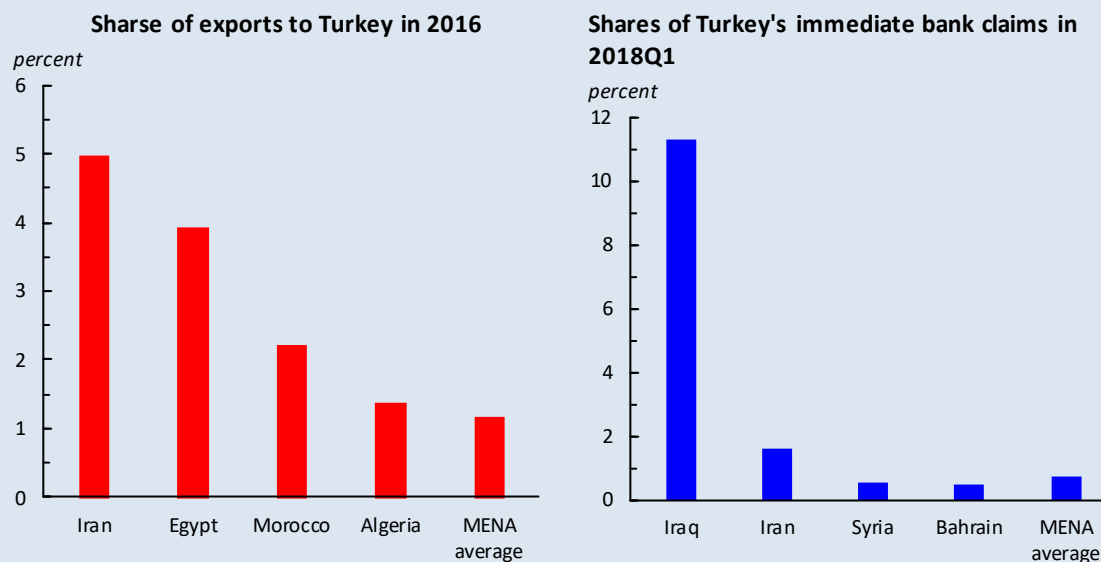
In economies with flexible exchange rates, such as Egypt, nominal exchange rates will tend to depreciate. To the extent that nominal depreciations result in real-exchange rate depreciations, tradable industries gain competitiveness, which could stimulate the economy. Nonetheless, it is not obvious that the optimal policy response is to allow exchange rates to float, because of concerns about exchange rate volatility and dollarized liabilities.

Box II.4 Economic linkages between Turkey and MENA countries

The Turkish economy is vulnerable to international financial volatility and a rising U.S. dollar because of the country's large dollar-denominated debt. Political tensions with the United States and U.S. interest rate hikes have worsened the situation. Between January and August 2018, the Turkish stock market dropped by about 25 percent and the Turkish lira fell about 40 percent.

Turkey's economic and trade links with the Middle East and North Africa (MENA) are limited. A structural vector autoregression (VAR) analysis with data from 1998Q1-2015Q2 shows that a 1 percentage point drop in Turkey's growth is associated with small or statistically insignificant growth effects across MENA (World Bank, 2016). MENA's trade exposure to Turkey is relatively small, albeit with some important exceptions. For MENA on average, exports to Turkey in 2016 amounted to about 1.1 percent of total exports (Figure II.6). Iran, Egypt, Morocco and Algeria are the four MENA countries with highest shares of exports to Turkey. Imports from Turkey are slightly more substantial. On average, 3.5 percent of MENA imports are from Turkey. Shares of imports from Turkey in 2016 are largest for Iraq (10.8 percent), Yemen (9.8 percent), Tunisia (4.2 percent), and Iran (4.2 percent). Banking connections between MENA and Turkey are generally negligible, except for Iraq. Figure II.6 shows Turkish immediate bank claims as a percentage of all foreign immediate bank claims in Q1-2018 on MENA and on the four most exposed MENA countries to Turkish banks. Iraq is the most exposed country. Reported immediate Turkish bank claims in Q1-2018 on Iraq amounted to US\$269 million, about 11 percent of all foreign immediate bank claims on Iraq.

Figure II.6 Economic linkages with Turkey



Sources: World Bank, World Integrated Trade Solutions; Bank for International Settlements.

