PROMOTING INCLUSIVE GROWTH IN THE MIDDLE EAST AND NORTH AFRICA
Challenges and Opportunities in a Post-Pandemic World

Editors
ROBERTO CARDARELLI
MERCEDES VERA MARTIN
SUBIR LALL
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As we look ahead to the 2023 World Bank-International Monetary Fund Annual Meetings in Marrakesh, this occasion will be an important milestone for the IMF, Morocco, and the whole Middle East and North Africa region. Thousands of people representing IMF member country authorities and global and regional policymakers, civil society organizations, media, students, and IMF and World Bank staff will gather together, marking a renewed commitment by the IMF to its partnership with countries and people in the region. Working together we can seek to build on the progress achieved during the past few decades in improving the standards of living of their citizens, and work toward a future grounded in a more equal and inclusive model of development.

Ten years after the Arab Spring, the need to ensure more and fairer opportunities for all—and, in particular, opportunities for young people, women, and entrepreneurs—remains a key priority for MENA countries. Demographic changes, evolving climate conditions, the impact of automation and artificial intelligence in job markets, all pose new challenges to the longstanding issues of high unemployment and deep inequalities in the region.

This book, *Promoting Inclusive Growth in the Middle East and North Africa: Challenges and Opportunities in a Post-Pandemic World*, leverages recent IMF research to assess the promise of various approaches for addressing these old and new challenges—reducing gender inequalities, improving access to social protection systems and financial services, adapting to climate change and developing greener economies, fostering new economic opportunities for the private sector, and harnessing the benefits of fast-paced transformations in the nature of work.

The region now faces significant challenges from the economic shockwaves from the war in Ukraine, and this comes on top of having to deal with the persistent effects of the COVID-19 pandemic. It is imperative that we work together—through sound policies and strong partnerships—to overcome these challenges and ensure they do not derail the region’s quest for a more inclusive model of development. In fact, it is even more essential that MENA economies remain committed to the reforms that will yield more resilient economies while opening opportunities to every individual to fulfill their potential and realize their aspirations.

The analyses and policy recommendations in this book aim to serve as background for discussions on the priorities for economic and social reforms in MENA economies, while offering a pathway for the IMF and other global partners to come together and accompany the region in the quest for a more prosperous future for all its citizens.

Kristalina Georgieva
Managing Director
International Monetary Fund
Acknowledgments

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Abbreviations

AEs   advanced economies
AI    artificial intelligence
AIC   Akaike Information Criteria
ATMs  automated teller machines
BIC   Bayesian Information Criteria
CA    Central Asia
CCA   Caucasus and Central Asia
EDA   Emerging and Developing Asia
EDE   Emerging and Developing Europe
EMDE  emerging market and developing economies
EME   emerging market economies
EMs   emerging markets
GCC   Gulf Cooperation Council
GGGI  Global Gender Gap Index
GMM   Generalized Method of Moments
HDI   Human Development Index
HHI   Herfindahl-Hirschman Index
HICs  high-income countries
ICT   information and communication technology
LAC   Latin America and the Caribbean
LICs  low-income countries
LIDCD low-income developing countries
LFP   labor force participation
LFPR  labor force participation rate
MENA  Middle East and North Africa
MENAP Middle East, North Africa, Afghanistan, and Pakistan
MICs  middle-income countries
NAP   National Adaptation Plan
OECD  Organisation for Economic Co-operation and Development
PPP   purchasing power parity
RoW   rest of the world
SMEs  small and medium enterprises
SME FI small and medium enterprise financial institutions
SOBs  state-owned banks
SOEs  state-owned enterprises
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<td>SSA</td>
<td>sub-Saharan Africa</td>
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<tr>
<td>UAE</td>
<td>United Arab Emirates</td>
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<tr>
<td>UNFCCC</td>
<td>United Nations Framework Convention on Climate Change</td>
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<td>WBES</td>
<td>World Bank Enterprise Survey</td>
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<td>WBL</td>
<td>Women, Business and the Law database</td>
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Introduction

Roberto Cardarelli • Mercedes Vera Martin • Subir Lall

Despite the pre-pandemic gains in poverty reduction, literacy, and lifespans, many Middle East and North Africa (MENA) economies have struggled to ensure that the benefits of economic development and diversification could accrue equally to all segments of their population. Among the main issues that remain unresolved are the high share of inactive youth (who are not engaged in employment, education, or training); large gaps in economic opportunities for women; fragmented social protection systems; and underdeveloped private sectors with tight regulation and limited access to credit that stifle the creation of new firms and growth in output, employment, and incomes.

The COVID-19 pandemic not only risks wiping out some of the progress made in the region over the past decades, but could also exacerbate inequality in a durable way. There is evidence that the impact of the pandemic has been uneven across groups, with the recession having a disproportionate effect on the low-skilled, the young, women, and migrant workers (IMF 2021).

Many countries in the region have reacted to the pandemic by implementing rapid responses that have helped mitigate the social impact from the crisis. Still, an uneven recovery from the health crisis could lead to a permanent widening of existing gaps and, ultimately, weaker growth and a less inclusive society. In addition to crisis legacies and preexisting vulnerabilities, a few global trends could also weigh on the region’s prospects for strong and inclusive growth in the post-COVID-19 world. Climate change is already posing significant challenges to many MENA economies by causing more frequent and intense weather-related disasters. And the increased use of automation and artificial intelligence in production processes means that MENA labor markets will also look quite different in the future, with new challenges and opportunities that are still difficult to appreciate fully.

This shifting landscape motivates us to return to the theme of inclusive growth in MENA, a topic that we have followed with close attention over the past decade. In 2018, the IMF organized a regional conference in Marrakesh, Opportunities for All: Promoting Growth, Jobs, and Inclusiveness in the Arab World. The objective was to continue the discussion with policymakers, the private sector, and civil society in the MENA region on how to put an inclusive growth agenda into action.¹ That discussion had begun four years earlier, with the 2014 Amman regional conference, Building the Future: Jobs, Growth, and Fairness in the Arab World, and the meetings in Marrakesh were aimed at advancing the discussion on which specific policies were needed to unlock the region’s potential, exploit new sources of growth, promote entrepreneurship and innovation, embrace transparency and technology, and scale up opportunities for women and youth in the MENA region. The Marrakesh conference’s main message, summarized in Opportunity for All: Promoting Growth and Inclusiveness in the Middle East and North Africa (Purfield and others 2018), was that MENA countries needed to change their economic models, and indeed build a new social contract, to create more jobs, lift growth, and ensure that the benefits of economic development accrue more broadly to their citizens.

The objective of this book is to reassess the inclusive growth agenda in the MENA region in light of the rapidly changing, pandemic-influenced world. The greater demand for protection against the negative effects of the health crisis is likely to run up against the more severe macroeconomic constraints faced by many economies in the region (including weaker fiscal positions and external competitiveness). Satisfying those demands in the face of a narrower fiscal space makes it unavoidable to reconsider the role of the state in the MENA region, from primary provider of goods and services to provider of opportunities. And while some of the old challenges for inclusiveness that were emphasized in the 2018 Opportunities for All conference remain to be addressed, new ones are looming, from the impact of the pandemic on the future of work to the implications of climate change on the economic and social fabric of MENA countries.

The approach followed in this book is the one emphasized in a recent, comprehensive IMF book on inclusive growth (Cerra and others 2022). In that work, the inclusiveness of economic models is described as a complex, multifaceted phenomenon that articulates around four different dimensions: (1) equality in the distribution of the outcome of growth, be it in income or wealth; (2) equality in the opportunities to access basic social services, like health care and education, but also financial products and services; (3) jobs and income; and (4) the involvement of the state and the role of the state in building a beautiful society. In this book, we continue that approach with a focus on MENA.

¹ The conference was organized jointly with the Arab Monetary Fund, the Arab Fund for Economic and Social Development, and the Government of Morocco.
an equal possibility for all to participate in economic life, mainly by fulfilling their professional aspirations and having jobs that are commensurate to their education and talent; and finally, (4) an equal possibility for all to have their voice heard in society and politics (the empowerment dimensions of inclusiveness).

Chapter 1 of this book adopts this framework and assesses where the MENA region and its countries stand in each of the four dimensions of inclusive growth. To do so, it uses a series of indicators that are widely utilized in the literature to build inclusiveness indexes, a synthetic summary of the degree to which MENA countries follow inclusive growth models compared to peer economies. The results of the exercise confirm the premise of this book and set the ground for the following chapters: despite the gains in many socioeconomic indicators over the past few decades (Koshy and others 2021), on average and compared to other regions, the economic model followed by MENA countries hasn’t been able to benefit, include, and empower a significant share of their population. The gap with the rest of the world is particularly large in the participation and empowerment dimensions of inclusiveness. Within these dimensions, MENA countries appear to be lagging other regions, particularly in allowing women to participate in economic life, in fostering the development of an efficient private sector, and in improving the quality of governance. The gaps are largest in the region’s low-income countries, whereas Gulf Cooperation Council countries score relatively better than the rest of the world on indicators of financial and labor market inclusion. By contrast, the relative lag in the quality of governance is quite diffused, with only three countries in the MENA region above the rest-of-the-world average.

After taking stock of where the MENA region stands in the four dimensions of inclusiveness, and given the main gaps relative to other regions, the book turns to a question that represents a common theme across its chapters: What is the economic price that could be associated with the lack of inclusiveness? Can the lackluster GDP growth and the episodes of social instability experienced in the last few decades be a consequence of the poor inclusiveness of the MENA region’s economic model? As noted in Chapter 2, the empirical literature has struggled to identify (let alone quantify) the causal relationship between many dimensions of inclusiveness (particularly the inequality of income and wealth) and economic growth and stability. The issues of reverse causality, endogeneity, and data and model dependence are cited among the reasons it has been difficult to reach broad consensus on the relationship between a low-inclusive economic model and lower economic growth and stability.

Rather than searching for an empirical relationship between inclusiveness and economic growth in the MENA region, Chapter 2 looks at some of the mechanisms through which the lack of inclusiveness (associated with the existence of frictions that constrain participation in economic activity) could indeed result in lower economic growth. This is done in the context of a general equilibrium model, calibrated to reflect an average MENA economy, where individuals with different income, wealth, and skills do not have the same opportunity to work and invest due to the presence of barriers and friction that restrict their access to markets and to credit. The chapter shows that a reform package that simultaneously reduces product market distortions and improves access to credit could lead to a more efficient allocation of resources and significantly boost output, wages, and jobs (up to double their levels in steady state). Importantly for the MENA region, the simulations show that an increase in public investment (as in the “old” model of growth) that achieves the same increase in output would not be able to generate the same improvement in welfare (particularly wages and jobs) compared with reforms that remove market distortions and support a more dynamic economy with an expanded role for the private sector.

These results are particularly relevant for the MENA region, as product market distortions and limited access to financial services are two important barriers that prevent new firms from entering markets and existing ones from growing in scale. As emphasized in the Opportunity for All paper (Purfield and others 2018), another key obstacle to private sector development in the region is the dominant position experienced by state-owned enterprises (SOEs) (Ramirez-Rigo and others 2021). Using firm-level data, Chapter 3 shows that the presence of SOEs has a negative impact on competition and private investment, in the MENA region even more than in other regions of the world, reflecting the relatively larger footprint of SOEs there. In particular, the chapter finds that on average in the MENA region, the larger SOE presence in an economic sector tends to lower investment by private firms in that same sector, controlling for firm-specific factors.

The presence of a relatively small private sector is one of the main reasons why growth hasn’t been able to generate enough jobs in the MENA region. But the lack of job opportunities for women and young people points to the presence of specific distortions that tend to segment labor markets and limit the possibility of participating in economic life for these two groups. Chapter 5 focuses on the reasons why female labor force participation is much lower in the MENA region than in the rest of the world. Its main finding is that gender disparities in basic and financial legal rights are likely to be the most powerful barriers to women’s participation in economic life in the MENA region, followed by restrictions in labor market codes and regulation. While to a certain extent those factors reflect well-established social norms that may prove difficult to change, removing barriers that prevent women’s participation in the labor force and entrepreneurship promises to have a substantial impact on output and welfare. Using a general equilibrium model with gender gaps calibrated to Egypt, Chapter 5 shows that if the indicator of basic legal rights for women were the same as the average for other emerging market economies, female labor force participation in Egypt would be 45 percent higher. In the long term, this would correspond to an increase...
in output by about 10 percent and a decline of the Gini index of income inequality by 2 percentage points.

When thinking about measures to boost job creation, policymakers should consider the possibility that MENA labor markets will experience the same profound transformations already visible in many advanced economies (and that the pandemic is likely to have accelerated), from the use of automation, digitalization, and remote work in production processes. Chapter 4 discusses how these trends can change the nature of work in the MENA region. It shows that the negative impact of automation on employment could be particularly felt by those economies with a high concentration of jobs in low- and medium-skill occupations. On a positive note, female employment is likely to be relatively less vulnerable to automation, and remote work may provide new employment opportunities to women and the young (especially in those MENA economies that have invested significantly in information and communication technology infrastructure, like the Gulf Cooperation Council countries) by reducing commuting costs and providing more flexible work schedules.

In the short term, the COVID-19 crisis has widened the gender gap and reduced education attainment and possibilities for young Arabs, as well as worsening poverty, inequality, and health outcomes (IMF 2021). This has called for many policy initiatives in the region to extend the coverage of social protection systems. Despite this prompt response, Chapter 6 argues that the levels of public social spending in the region remain relatively low, something that could help explain why the MENA region lags the rest of the world in many socioeconomic indicators, including the Human Development Index. The analysis cited in the chapter suggests that a sustained increase in social protection spending by 10 percent in MENA economies can reduce that gap by 20–40 percent. Expanding social protection systems may, however, prove difficult for MENA economies that have emerged from the pandemic with weaker fiscal positions. For these economies, improving the coverage and quality of social protection will require rationalizing other forms of public expenditure, as well as improving the efficiency and targeting of current social spending.

MENA policymakers have also been quick to react to the COVID-19 crisis with a range of measures that allowed both small and medium enterprises (SMEs) and households to maintain, and at times improve, their access to credit. This has indirectly enhanced financial inclusion, an area where the MENA region has accumulated a large gap relative to peer groups of countries, as discussed in Chapter 7. The analysis shown in that chapter suggests that in many MENA low-income countries, financial development is lower than what would be expected for a country with similar observed structural characteristics, and the level of financial inclusion is below what is predicted by indicators of their financial depth. This suggests that low financial inclusion in these economies may also reflect policy distortions, including restrictions on banking activities that limit competition and increase the borrowing costs for SMEs and households, and incomplete sharing of information that complicates requirements and costs of providing collateral. While the diffusion of fintech and new technologies can help overcome some of the constraints, significant and durable improvements in financial inclusion would require a holistic approach that encompasses a broad range of areas, such as institutional quality, macroeconomic stability, adequate financial policy, and better legal and regulatory frameworks.

The final chapter of the book deals with a dimension of the inclusive growth debate in the MENA region that has become increasingly difficult to ignore in the past few years, namely the social and economic impact of climate change. The MENA region is already feeling the brunt of climate change, as many of its countries have increasingly struggled with higher temperatures, lower and more erratic rainfall, and more frequent and severe climate-related disasters (Duenwald and others 2022). Continued climate change will pose a major threat to growth and inclusiveness in the region, as its economic effects tend to be felt disproportionately by the most vulnerable groups in these economies. The main conclusion from Chapter 8 is that MENA countries will need to include adaptation strategies in their inclusive growth agendas. Given the narrower fiscal space available, the private sector will also play a critical role in countries’ adaptation efforts, and public policies should aim to catalyze private investment in their adaptation and resilience strategies.

The chapters of this book provide new, analytical approaches to both long-standing and more recent challenges to inclusive growth in the MENA region, using a variety of methodologies. The common thread that links them, and the main policy message that emerges with clarity from the analysis, is that promoting inclusive growth will require substantial reforms to close the gap between the growth models of the past and what is required going forward, and to turn this challenge into an opportunity. While making growth more inclusive will require a comprehensive package of reforms, the priorities that emerge from this book are:

- **Level the playing field between public and private firms.** Developing the MENA region’s private sector will require eliminating the many barriers that prevent new firms from entering markets and existing small businesses and startups from growing in scale. This will require reforms that reduce the dominant role of SOEs in the region, lower burdensome government regulations, enhance financial inclusion (especially of SMEs), and improve general governance (see also Jarvis and others 2021).

- **Revamp social protection systems.** The decision of many governments in the MENA region to expand the reach of their social safety nets during the pandemic helped mitigate the impact of the health crisis on the most vulnerable. Going forward, the challenge is to make this expansion sustainable in the long term by building social protection systems that guarantee more equal access to basic services and more efficient, cost-effective, and targeted social assistance.
• **Redesign tax systems.** The MENA tax-revenue-to-GDP ratio is relatively low (Purfield and others 2018), and there is scope to both raise more revenues to fund inclusive growth reforms and achieve more equitable forms of taxation that can directly reduce income and wealth inequality. A key priority is widening tax bases (including by introducing or reinforcing taxation on wealth and property) and improving the progressivity of income taxes (including by increasing the threshold for tax exemptions; raising higher marginal rates; and including non-wage earnings, such as income from interest, capital gains, and dividends). Using the extra revenues to fund cash transfers at the bottom of the income distribution would improve the overall progressivity of income taxation and reduce extreme poverty. Re-thinking the nature and size of the (widespread) exemptions on corporate and value-added taxes may also contribute to improving progressivity and targeting. Consideration could also be given to tax policies that could facilitate the insertion into (formal) labor markets of women and the young, for example through lower employer taxes or social security contributions, while ensuring that at least part of social assistance is not lost when finding low-paid occupations. Introducing carbon taxes would help create fiscal space to increase adaptive investment for greater resilience against the effects of climate change.

• **Promote digitalization as a tool to improve both inclusion and efficiency.** Stepping up digitalization and investing in new technologies will foster change and inclusion through many channels. On one side, it will provide the young and women with the new job opportunities associated with remote working, online learning, digital finance, and e-commerce. On the other, it will help expand social protection systems by ensuring that additional resources will be directed to those who really need them and by allowing efficiency gains in the delivering of public services.

• **Invest in talent and reduce barriers for female participation in economic life.** Building human capital is not enough if part of it remains underutilized or gets marginalized. Many MENA economies have in common a relatively large pool of highly educated young women that does not find its way into effective participation in formal labor markets. Removing the legal and policy barriers that weaken the link between women’s education and employment outcomes would unlock an important untapped source of growth in the MENA region for the benefit of the population as a whole.

• **Leverage mitigation and adaptation strategies to make green investment an engine of growth and job creation.** Progress in decarbonization and transition to renewable energy sources is not only necessary for sustainability reasons but could also be a powerful engine of growth and jobs. By increasing the resilience of MENA economies to climate-related shocks, adaptation strategies would boost growth and improve inclusiveness at the same time, as it is especially the most vulnerable who would benefit from the lower exposure to catastrophic events.

How can the IMF help the MENA region meet these objectives? To a large extent, the policies highlighted here aren’t fundamentally different from the ones that were discussed during the Amman and Marrakesh conferences and emphasized in the *Opportunity for All* paper. What has changed is that the pandemic has made their implementation even more urgent, as persistent effects of the health crisis could again test the social and political stability in the region, which will only be assured in the long term through steady job creation and a new social contract that puts in place a fair and inclusive economic model. Given the weaker fiscal and external environment, structural reforms should be designed in the context of credible macroeconomic frameworks that (1) clearly identify the financing of the reforms, (2) take into account the complementarities between them, and (3) ensure that their implementation will not jeopardize macroeconomic stability. The IMF can be an important partner in this endeavor, as these assessments can be at the core of its funding, surveillance, and capacity development activities in the region during the next few years. Our hope is that this book could offer yet another contribution to a stronger partnership between the IMF and MENA economies, as they recover from the pandemic, while building an environment where the gains of economic development are shared across the entire population and lead to better standards of living for all.

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INTRODUCTION

Rising income inequality over the past few decades has presented an important challenge to policymakers all across the world (IMF 2007; Cerra and others 2022). In developing and emerging markets (EMs), even as growth has accelerated in response to economic reforms and integration in global trade, it is important for its sustainability to ensure that its benefits are shared more equitably across the population and accompanied by a broader access to basic services such as health and education (Ostry, Berg, and Tsangarides 2014). Accordingly, the issue of inclusive growth remains at the forefront of national economic policy agendas. The COVID-19 pandemic has added to this policy challenge by exacerbating the risk that it could leave a legacy of higher poverty and inequality (Cerra and others 2022).

Many countries in the MENA region¹ have introduced reforms aimed at ensuring that economic growth could benefit a larger share of their population and bring more opportunities and better standards of living for all. The IMF paper Opportunity for All: Promoting Growth and Inclusiveness in the Middle East and North Africa (IMF 2018) reviews and discusses these reforms, and the many gaps and challenges that remain in the MENA region.

The objective of this chapter is to take stock of progress made thus far and look at where MENA countries now stand across the many different dimensions of inclusive growth. To do so, we adopt a wide definition of inclusiveness, following the conceptual framework that was used in the recent book How to Achieve Inclusive Growth (Cerra et al. 2022). According to this framework, policies aimed at enhancing inclusiveness should focus on four dimensions: (1) ensure that the increases in income and wealth are shared broadly across populations; (2) offer more opportunities to access basic services, including health and education; (3) promote greater participation in economic life, particularly for women and youth; and (4) empower citizens so they can actively contribute to their country’s social and political life.

We look at a broad range of indicators that are generally utilized in the literature to assess where countries are on all these dimensions. We summarize the information contained in these indicators by assembling them into “inclusiveness indices” for 122 countries, which we then use to compare the MENA region with other groups and to identify major differences and idiosyncrasies within the MENA region.

Of course, trying to capture the various and complex dimensions of inclusiveness through summary indices has its own limitations, and the accuracy of the results greatly reflects the quality of the underlying indicators. The interpretation of the results should be accompanied by a careful consideration of the differences in initial economic, policy, and social conditions across countries. As emphasized by Balasubramanian and others (2021), a one-size-fits-all approach may not work well when it comes to making growth more inclusive. Still, using these indices to compare the inclusiveness of economic models across different regions and countries could help identify the main challenges for MENA countries, and where progress is needed the most in the years ahead.

DEFINING AND MEASURING INCLUSIVE GROWTH

Inclusive growth is a broad concept that goes well beyond equality in income or wealth distribution. OECD defines inclusive growth as “economic growth that is distributed fairly across society and creates opportunities for all.”² Ianchovichina and Lundstrom Gable (2012, 147) define inclusive growth as “economic growth to which people are able to contribute to and benefit from [it].” Cerra and others (2022) define inclusive growth in its broadest sense to include four pillars: benefit sharing, participation, opportunity, and empowerment (Figure 1.1).

¹ Throughout this chapter MENA refers to the Middle East, North Africa, Afghanistan, and Pakistan.

It is important to have a holistic view of inclusiveness and look at all of these pillars together, as citizens believe that growth is inclusive not only if they can share its benefits, but also if they have equal opportunities to access basic services, participate in economic life (mainly by having a job or running a business), and have their voices heard when it comes to decisions that affect society at large and their own future.

We measure the extent to which growth has been inclusive in a sample of 122 countries around the world, including 15 MENA economies (see Annex 1.2 for a complete list of countries in the sample). To do so, we build eight indexes that capture key dimensions underlying the four pillars of inclusive growth, namely (1) income inequality, (2) access to education, (3) access to health services, financial inclusion, (4) labor market inclusion, (5) private sector inclusion, (6) gender inclusion, and (8) quality of governance (Table 1.1). A standardized index score is assigned to each country based on its relative performance in each of these dimensions (see Annex 1.3 for details on the methodology of the indices and scores for each indicator).

**OVERALL INCLUSIVE GROWTH INDEX**

Overall, the MENA region scores fifth out of the seven regions in inclusive growth. The average for MENA countries is below the rest-of-the-world average in every subindex (see Figure 1.2). MENA countries are close to other countries in five out of eight subindices: income inequality, access to education and health, and financial and labor market inclusion. The subindices where the MENA region lacks the most are private sector inclusion, quality of governance, and gender inclusion. In particular, in gender inclusion, MENA countries lag behind the rest of the world as much as in all other subindices combined.

Looking at individual countries, the MENA region is not a homogeneous group (see Figure 1.3). The six Gulf Cooperation Council (GCC) countries have the highest inclusive growth scores, and all of them score higher than the rest-of-the-world average. The dimensions where GCC countries score better than the rest of the world in particular are financial and labor market inclusion. GCC countries benefit from their deep financial markets and low unemployment rate. The countries that have the lowest inclusive growth scores are Yemen, Mauritania, and Pakistan. These countries lag other countries in the private sector and financial inclusion the most. In quality of governance, only three countries in the MENA region are above the rest-of-the-world average.

In what follows we discuss where the countries in the MENA region stand on each of the four main dimensions of inclusive growth and present conclusions from our indexes.

**BENEFIT SHARING**

A truly inclusive growth process allows all groups of society to share the benefits of greater economic activity. The sharing of the benefits of growth should involve lower poverty and greater income and wealth across the whole distribution so that, at the very least, this distribution does not become more unequal over time.

Countries in the MENA region have made good progress in reducing extreme poverty. The share of the MENA population (excluding the GCC due to data availability) in extreme poverty (living below $1.90 per day) has been declining over the past three decades and is currently not very


### TABLE 1.1.

**Indicators of Inclusive Growth**

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<td>Inter-American Development Bank</td>
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<td>Inter-American Development Bank</td>
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<td>School life expectancy</td>
<td>UNESCO</td>
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<td>Opportunity</td>
<td>Access to health services</td>
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<td>Employment to population, gender gap</td>
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<td>Global Findex Database</td>
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<td>World Press Freedom Index</td>
<td>The 2018 World Press Freedom Index</td>
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<td>Government effectiveness</td>
<td>Worldwide Governance Indicators</td>
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<td>Regulatory quality</td>
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<td></td>
<td>Rule of law</td>
<td>Worldwide Governance Indicators</td>
<td>Worldwide Governance Indicators</td>
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different from the rest of the world. However, the higher poverty threshold of $3.20 per day shows that poverty has been declining in the MENA region at a slower pace than elsewhere (Figure 1.4). The slower pace of poverty reduction in the MENA region might simply reflect its relatively slower GDP growth. On average in almost each of the last three decades, real per-capita GDP growth in all MENA subregions was slower than in peer groups of countries (Figure 1.5).

A well-known and widely available indicator of the degree of equality in income distribution is the Gini coefficient. After we convert the estimated Gini coefficients from the World Inequality Database into a z-score index (with a higher score pointing to lower inequality), we find that (Figure 1.6):

On average the MENA region is fourth out of seven groups by income inequality.

There is large heterogeneity within the region. The income distributions in MENA EMs and low-income countries (LICs) are less unequal than their rest-of-the-world peers, while GCC countries are characterized by relatively greater income inequality. In fact, income distributions in GCC countries are the most unequal in the region, despite their higher income levels.

**OPPORTUNITY**

To achieve equality of outcomes, individuals need to be provided with equal opportunities to cultivate their talents and develop the skills needed for a productive life. Inequality of opportunity generates and perpetuates inequality of outcomes (Dabla-Norris and others 2015; and Cerra et al. 2022), as shown by the fact that health and education outcomes are worse for poorer countries, and for the poorest individuals within countries. Ensuring equal access to these services allows everybody a fair shot at competing in the job market so that individuals’ income can be determined mostly by their efforts and abilities.
Access to Education

Access to education is relatively low in the MENA region according to our subindex (Figure 1.7), with the region ranked fifth of the seven groups considered in this chapter. For secondary school enrollment, student-to-teacher ratio in primary school, and school life expectancy (the total number of years of schooling that a child can expect to receive from primary to tertiary education), the MENA region ranks the third lowest in the world.\(^5\) The MENA region fares slightly better in quality of vocational training with the fourth rank, but there is still plenty of room for improvement compared to other groups. These outcomes confirm previous findings that the efficiency of education spending is relatively low in the MENA region (IMF 2018).

The MENA region’s relative gap with the rest of the world does not seem to depend on the level of income—all three income groups lag behind their comparator groups by a similar margin. Within the region, GCC countries rank relatively higher owing to more established education systems and generous education allowances, while LICs (Mauritania and Yemen) are among the ones that lag behind, as they suffer the most from the lack of resources to build an adequate public school system. Most MENA EMs (Iran, Jordan, Egypt, Morocco, Lebanon, and Pakistan) rank below the average of the rest of the world.

\(^5\) See Annex 1.3 for the MENA region’s performance in each indicator.
Access to Health Services

On average, the MENA region ranked fifth in access to health services (Figure 1.8). The region ranks sixth on two of the four indicators used to build the index (infant mortality rate and hospital beds per 1,000 people), while it ranks fifth in universal health service coverage and fourth in healthy life expectancy. This is in line with the region’s relatively low efficiency of government health expenditures found in previous studies (IMF 2018).

As with access to education, the gap in health services compared with the rest of the world does not seem to depend on the level of income (if anything, the distance from peers is larger for GCC countries). Within the region, Mauritania, Pakistan, and Yemen are the ones that most seem to struggle to provide basic health services to their residents. By contrast, health care

Figure 1.4. Poverty Head Count Ratio at $3.20 a Day (2011 PPP) (Percentage of population)

Figure 1.5. GDP per Capita Growth (Percentage change, in constant 2017 international dollars)

Note: AE = advanced economies; CCA = Caucasus and Central Asia; EDA = Emerging and Developing Asia; EDE = Emerging and Developing Europe; GCC = Gulf Cooperation Council; LAC: Latin America and the Caribbean; MENA = Middle East; North Africa, Afghanistan, Pakistan; SSA = sub-Saharan Africa.

Source: IMF World Economic Outlook (WEO).
Note: GCC = Gulf Cooperation Council; MENA EM = Middle East, North Africa, Afghanistan, and Pakistan emerging markets; MENA LIC = Middle East, North Africa, Afghanistan, and Pakistan low-income countries.
systems in GCC countries and Lebanon seem to be relatively more efficient, especially in providing relatively broader coverage and ensuring longer healthy life expectancies.

Financial Inclusion

The MENA region ranks fifth in financial inclusion (Figure 1.9). This is mainly driven by the low average shares of the poorest population with an account at a financial institution (only 41 percent, compared to 92 percent in advanced economies and 57 percent in the Emerging and Developing Europe) and the poorest population share who borrowed from a financial institution (only 9 percent, compared to 16 percent in CCA, the highest performer). The MENA region performs well in terms of internet access (an indicator for availability of digital payments and online banking), ranked third in the world (with 71 percent of its population using the internet compared to 89 percent in advanced economies and 78 percent in Emerging and Developing Europe).

Average results mask large heterogeneities within the region. The financial inclusion gap with the rest of the world is particularly large for the LICs in the MENA region, whereas GCC economies and emerging markets in the region are not that far from their peers. GCC countries perform relatively well in all the indicators. Among MENA EMs, Iran fares well (with about 92 of the poorest 40 percent of the population having bank accounts, 21 percent borrowing from a financial institution, and 84 percent of the population using the internet). In contrast, less than 15 percent of the poorest populations have bank accounts and less than 6 percent have
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1. Access to Health Services, Regional Average
(0–100 worst to best)

2. Access to Health Services: MENA vs. RoW
(0–100 worst to best)

3. Access to Health Services: MENA
(0–100 worst to best)

Sources: World Bank, World Development Indicators; World Health Organization; and IMF staff calculations.
Note: The figure uses International Organization for Standardization (ISO) country codes. AE = advanced economies; CCA = Caucasus and Central Asia; EDA = Emerging and Developing Asia; EDE = Emerging and Developing Europe; GCC = Gulf Cooperation Council; LAC = Latin America and the Caribbean; MENA = Middle East, North Africa, Afghanistan, and Pakistan; MENA EM = MENA emerging markets; MENA LIC = MENA low-income countries; RoW AE = rest-of-the-world advanced economies; RoW EM = rest-of-the-world emerging markets; RoW LIC = rest-of-the-world low-income countries; SSA = sub-Saharan Africa.

Figure 1.8. Access to Health Services

1. Financial Inclusion, Regional Average
(0–100 worst to best)

2. Financial Inclusion: MENA vs. RoW
(0–100 worst to best)

3. Financial Inclusion: MENA
(0–100 worst to best)

Sources: Global Findex Database, World Bank World Development Indicators, World Economic Forum Global Competitiveness Report, and IMF staff calculations.
Note: The figure uses International Organization for Standardization (ISO) country codes. AE = advanced economies; CCA = Caucasus and Central Asia; EDA = Emerging and Developing Asia; EDE = Emerging and Developing Europe; GCC = Gulf Cooperation Council; LAC = Latin America and the Caribbean; MENA = Middle East, North Africa, Afghanistan, and Pakistan; MENA EM = MENA emerging markets; MENA LIC = MENA low-income countries; RoW AE = rest-of-the-world advanced economies; RoW EM = rest-of-the-world emerging markets; RoW LIC = rest-of-the-world low-income countries; SSA = sub-Saharan Africa.

Figure 1.9. Financial Inclusion

bank loans in Mauritania, Pakistan, and Yemen. These countries also seem to have benefited relatively less from the digitalization of financing services compared to GCC countries and Iran, as the latter have leveraged their well-developed internet infrastructure to broaden access to financial services.

PARTICIPATION IN ECONOMIC LIFE

In addition to being able to access basic services, individuals’ well-being also depends on their ability to do well in the workplace. To ensure an inclusive participation in economic life, an economy needs to generate a sufficient amount of high-quality and productive jobs, both in the public and private sectors. As noted in the Opportunity for All paper (IMF 2018), this has been a traditional weak spot for many countries in the region that have experienced relatively low employment and labor force participation rates, particularly among women. This in turn partly reflects the scarcity of private sector jobs in the region, as private sector development continues to be constrained by policy and regulatory barriers but also, in many cases, by the presence of state-owned enterprises that enjoy monopolistic power and preferential access to factors of production at the expense of competition and productivity growth (IMF 2021a). For this reason, we focus in this section on three dimensions of participation, namely (1) participation in the labor market, (2) private sector inclusion, and (3) gender gaps.
Labor Market Inclusion

The MENA region ranks fifth in labor market inclusion (Figure 1.10), although this does not reflect low female labor participation (which will be discussed in the gender inclusion section). The MENA region has the highest youth unemployment and the lowest employment-to-population ratio. It does relatively better (ranked fifth) when it comes to active labor market policies to train and reskill the population. The MENA region’s share of self-employed workers (a proxy for informality) is the third lowest, mainly reflecting the GCC’s strict policy with regard to expatriate workers, who can only enter and reside in these countries when employed.

The comparisons by level of income show that the main challenges are in MENA EMs and LICs, as these groups on average perform much worse than their comparator groups. North African countries, in particular, have very high youth unemployment rates. Employment rates tend to be relatively low in MENA EMs and LICs, where they average 39 percent of the working age population (with Jordan, Yemen, and Algeria having the lowest employment rates in the region), whereas GCC countries experience generally higher employment rates (averaging 69 percent), thanks to the large share of expatriate workers for whom a working visa is required. Several MENA EMs and LICs (in particular, Pakistan, Mauritania, and Yemen) also show a relatively high share of self-employed, potentially pointing to large informal sectors in these economies. GCC countries’ high employment and low self-employment reflect the unique features of the GCC labor market—almost all expatriate workers need to be employed to stay in the country. GCC countries also appear to implement active labor market policies to help unemployed people reskill and find new employment.

Private Sector Inclusion

The MENA region scores relatively poorly in private sector inclusion, ranked fifth in the world (Figure 1.11). Banks in the MENA region strongly favor government and SOEs over the private sector—the ratio of private-to-public credit in the MENA region is only 2.8, the lowest in the world. The MENA region fares better in terms of extent of market competition and financing of small and medium enterprises, ranked third for both indicators.

Looking at differences by level of income shows that MENA LICs had significantly lower private sector inclusion compared to their rest-of-the-world (RoW) peers, whereas MENA EMs were close to the rest-of-the-world emerging market (RoW EM) average. Within the MENA region, the United Arab Emirates (UAE) leads the region in terms of private sector inclusion, followed by Saudi Arabia and Qatar, while Yemen and Mauritania have the lowest private sector inclusion in the region. Most MENA countries perform poorly in private versus public credit, suggesting an oversized footprint of the state in the economy in the region. Perceptions of market dominance by a few firms and difficulty in financing small and medium enterprises are not very severe in the UAE, Qatar, and Saudi Arabia, whereas they are of a much greater concern in other countries, in particular in Yemen and Mauritania.

Gender Inclusion

The MENA region has the lowest level of gender inclusion in the world. Our index confirms that this is a key aspect of inequality in the MENA region (Figure 1.12). Significant gender gaps exist in MENA countries in virtually every indicator of inclusion we used. The MENA region fares the low-

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Sources: ILOSTAT; World Bank, World Development Indicators; and IMF staff calculations.

Note: The figure uses International Organization for Standardization (ISO) country codes. AE = advanced economies; CCA = Caucasus and Central Asia; EDA = Emerging and Developing Asia; EDE = Emerging and Developing Europe; GCC = Gulf Cooperation Council; LAC = Latin America and the Caribbean; MENA = Middle East, North Africa, Afghanistan, and Pakistan; MENA EM = MENA emerging markets; MENA LIC = MENA low-income countries; RoW AE = rest-of-the-world advanced economies; RoW EM = rest-of-the-world emerging markets; RoW LIC = rest-of-the-world low-income countries; SSA = sub-Saharan Africa.

Figure 1.10. Labor Market Inclusion
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The gender gap in schooling is more heterogeneous in the region, with secondary school enrollment rates being higher for women in Jordan, Mauritania, Algeria, Bahrain, and Tunisia. Gender inequality in political involvement in the MENA region is the largest among the groups. The proportion of seats held by women in national parliaments is well below 30 percent in all countries except the UAE, where there is an equal share of seats across the two genders. In the Women, Business and the Law Index, which measures women's participation in business and law, only the UAE comes close to the world average whereas all other countries trail behind.

Figure 1.11. Private Sector Inclusion

Figure 1.12. Gender Inclusion

Sources: ILOSTATS; Global Findex Database; UNESCO; Inter-Parliamentary Union (IPU); World Bank Women Business and the Law Index; and IMF staff calculations. Note: The figure uses International Organization for Standardization (ISO) country codes. AE = advanced economies; CCA = Caucasus and Central Asia; EDA = Emerging and Developing Asia; EDE = Emerging and Developing Europe; GCC = Gulf Cooperation Council; LAC = Latin America and the Caribbean; MENA = Middle East, North Africa, Afghanistan, and Pakistan; MENA EM = MENA emerging markets; MENA LIC = MENA low-income countries; RoW AE = rest-of-the-world advanced economies; RoW EM = rest-of-the-world emerging markets; RoW LIC = rest-of-the-world low-income countries; SSA = sub-Saharan Africa.

est in four out of the five indicators for gender inclusion (employment; account at a financial institution; proportion of seats held by women in national parliament; and Women, Business and the Law Index). The region ranks the second lowest in terms of gender gap in secondary school enrollment.

While GCC countries perform somewhat better than poorer countries, all income groups in the MENA region face substantial gender gaps. In fact, all MENA countries are below RoW average when it comes to gender inclusion. The difference between male and female employment rates averages 45 percentage points (pps) in the MENA region compared to the world average of 20 pps, ranging from the high of 59 pps in Saudi Arabia to the low of 32 pps in Mauritania. The gender gap in schooling is more heterogeneous in the region, with secondary school enrollment rates being higher for women in Jordan, Mauritania, Algeria, Bahrain, and Tunisia. Gender inequality in political involvement in the MENA region is the largest among the groups. The proportion of seats held by women in national parliaments is well below 30 percent in all countries except the UAE, where there is an equal share of seats across the two genders. In the Women, Business and the Law Index, which measures women’s participation in business and law, only the UAE comes close to the world average whereas all other countries trail behind.
Defining and Measuring Inclusive Growth in the MENA Region

CONCLUSIONS

Combining several indicators widely used in the now rich literature on inclusive growth into a series of “inclusiveness indexes” allows us to gauge how inclusive growth is in MENA countries compared to peer countries. Relative assessments based on indexes always need to be taken with caution and need to be accompanied by a careful analysis of different socioeconomic conditions. Still, we believe that this exercise does have value in providing a snapshot of the state of play in this area and helps set the ground for the following chapters in this book.

The main message from our inclusiveness indexes confirms the main conclusions from the Opportunity for All paper (IMF 2018): while MENA countries have managed to make good progress in reducing extreme poverty and do not appear to exhibit particularly unequal income distributions (especially the EMs and LICs economies), the region lags other parts of the world in many of the dimensions of inclusive growth we considered in this chapter, particularly the participation and empowerment dimensions. These are the areas where action is more needed to make sure the benefits and opportunities of growth will spread more equally across the whole population in the MENA region. The analysis in this chapter can help prioritize the needed reforms to promote greater inclusive growth and guide policymakers toward preparing an agenda for the way forward for the next decade.

EMPOWERMENT IN SOCIAL AND POLITICAL LIFE

An inclusive economy also requires ensuring that there are no persisting disparities in social treatment among groups. Empowerment thus refers to people being able to have a voice, express their preferences, and being able to participate in social and political life. This requires societies to combine efficient economic systems with an effective system of governance, well designed institutions, and strong public sector accountability. The index we build for this dimension thus aims at capturing the quality of governance across the 127 countries considered in this chapter.

Quality of Governance

The MENA region ranks fifth in quality of governance (Figure 1.13). The region ranks particularly low on the World Press Freedom Index, where it is ranked last. The region ranks sixth in terms of government effectiveness and regulatory quality indicators, while it ranks third in both control of corruption and rule of law.

The lag with peer countries cuts across all levels of income, and the rich countries underperform their respective comparators more than the poor countries. Within the region, only the UAE, Qatar, and Oman exceed the RoW average. Yemen and Iran fare poorly in all five governance indicators. The UAE and Qatar perform well in most indicators (except press freedom), which reflects the UAE and Qatar’s relatively sound standing in terms of business environment, in particular for foreign companies and individuals. The universal underperformance in press freedom in the MENA region suggests greater transparency and accountability are needed to improve governance (IMF 2021b).

Sources: Reporters without Borders’ Worldwide Governance Index; and IMF staff calculations.

Note: The figure uses International Organization for Standardization (ISO) country codes. AE = advanced economies; CCA = Caucasus and Central Asia; EDA = Emerging and Developing Asia; EDE = Emerging and Developing Europe; LAC = Latin America and the Caribbean; MENA = Middle East, North Africa, Afghanistan, and Pakistan; MENA AE = MENA advanced economies; MENA EM = MENA emerging markets; MENA LIC = MENA low-income countries; RoW AE = rest-of-the-world advanced economies; RoW EM = rest-of-the-world emerging markets; RoW LIC = rest-of-the-world low-income countries; SSA = sub-Saharan Africa.

Figure 1.13. Quality of Governance

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1. Quality of Governance, Regional Average

2. Quality of Governance: MENA vs. RoW

3. Quality of Governance: MENA
### Annex 1.1.
#### Data Description

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Subindex</th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>School enrollment, secondary</td>
<td>Education</td>
<td>Gross enrollment ratio is the ratio of total enrollment, regardless of age, to the population of the age group that officially corresponds to the level of education shown. Secondary education completes the provision of basic education that began at the primary level and aims at laying the foundations for lifelong learning and human development by offering more subject- or skill-oriented instruction using more specialized teachers.</td>
<td>UNESCO</td>
</tr>
<tr>
<td>Pupil-to-teacher ratio in primary school</td>
<td>Education</td>
<td>Average number of pupils per qualified teacher at each level of education (pre-primary, primary, lower, and upper secondary education) in a given academic year. A qualified teacher is one who has at least the minimum academic qualifications required for teaching their subjects at the relevant level in a given country in a given academic year.</td>
<td>UNESCO</td>
</tr>
<tr>
<td>Quality of vocational training</td>
<td>Education</td>
<td>Response to the survey question “In your country, how do you assess the quality of vocational training?” [1 = extremely poor among the worst in the world; 7 = excellent among the best in the world]</td>
<td>2017–2018 weighted average or most recent period available.</td>
</tr>
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<td>School life expectancy</td>
<td>Education</td>
<td>Total number of years of schooling (primary through tertiary) that a child of school entrance age can expect to receive. This indicator assumes that the probability of a person being enrolled in school at any particular future age is equal to the current enrollment ratio at that age.</td>
<td>UNESCO</td>
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<tr>
<td>Borrowed from a financial institution, poorest 40 percent population</td>
<td>Financial inclusion</td>
<td>The percentage of respondents who report borrowing any money from a bank or another type of financial institution in the past 12 months, income, poorest 40 percent (percent age 15+).</td>
<td>Global Findex Database</td>
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<tr>
<td>Individual using internet</td>
<td>Financial inclusion</td>
<td>The percentage of individuals who used the internet from any location and for any purpose, irrespective of the device and network used, in the last three months</td>
<td>International Telecommunications Union.</td>
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<td>Account at a financial institution, poorest 40 percent population</td>
<td>Financial inclusion</td>
<td>The percentage of respondents who report having an account (by themselves or together with someone else) at a bank or another type of financial institution (see definition for financial institution account) or report personally using a mobile money service in the past 12 months (see definition for mobile money account), income, poorest 40 percent (percent age 15+).</td>
<td>Global Findex Database</td>
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<td>Employment, gender gap</td>
<td>Gender</td>
<td>The ratio of female employment to population rate to that of male.</td>
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<tr>
<td>Secondary school enrollment, gender gap</td>
<td>Gender</td>
<td>The ratio of female secondary school enrollment rate to that of male.</td>
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<td>Account at a financial institution, gender gap</td>
<td>Gender</td>
<td>The ratio of female having an account at a financial institution to that of male.</td>
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<td>Proportion of seats held by women in national parliaments</td>
<td>Gender</td>
<td>Women in parliaments are the percentage of parliamentary seats in a single or lower chamber held by women.</td>
<td>Inter-Parliamentary Union</td>
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<td>Women, Business and the Law Index</td>
<td>Gender</td>
<td>The Women, Business and the Law Index, composed by eight indicators structured around women’s interactions with the law as they begin, progress through, and end their careers, aligns different areas of the law with the economic decisions women make at various stages of their lives. The indicators are Mobility, Workplace, Pay, Marriage, Parenthood, Entrepreneurship, Assets, and Pension. A higher score indicates more gender equal laws.</td>
<td>World Bank</td>
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(continued)
### ANNEX TABLE 1.1.1 (continued)

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<th>Subindex</th>
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<td>Control of Corruption</td>
<td>Governance</td>
<td>Control of Corruption captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as &quot;capture&quot; of the state by elites and private interests. Estimate gives the country's score on the aggregate indicator, in units of a standard normal distribution, that is, ranging from approximately –2.5 to 2.5.</td>
<td>Worldwide Governance Indicators</td>
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<td>World Press Freedom Index</td>
<td>Governance</td>
<td>Score on the World Press Freedom Index, which measures the level of freedom available to journalists. The scale ranges from 0 (good) to 100 (very bad).</td>
<td>Reporters without Borders</td>
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<td>Government Effectiveness</td>
<td>Governance</td>
<td>Government Effectiveness captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. Estimate gives the country's score on the aggregate indicator, in units of a standard normal distribution, that is, ranging from approximately –2.5 to 2.5.</td>
<td>Worldwide Governance Indicators</td>
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<td>Regulatory Quality</td>
<td>Governance</td>
<td>Regulatory Quality captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. Estimate gives the country's score on the aggregate indicator, in units of a standard normal distribution, that is, ranging from approximately –2.5 to 2.5.</td>
<td>Worldwide Governance Indicators</td>
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<td>Rule of Law</td>
<td>Governance</td>
<td>Rule of Law captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence. Estimate gives the country's score on the aggregate indicator, in units of a standard normal distribution, that is, ranging from approximately –2.5 to 2.5.</td>
<td>Worldwide Governance Indicators</td>
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<td>Healthy life expectancy at birth</td>
<td>Health</td>
<td>Average number of years that a person can expect to live in “full health” by taking into account years lived in less than full health due to disease and/or injury.</td>
<td>World Health Organization</td>
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<td>Hospital beds per 1,000 people</td>
<td>Health</td>
<td>Hospital beds include inpatient beds available in public, private, general, and specialized hospitals and rehabilitation centers. In most cases, beds for both acute and chronic care are included.</td>
<td>World Health Organization</td>
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<td>Mortality rate, under 5, per 1,000 live births</td>
<td>Health</td>
<td>Under-five mortality rate is the probability per 1,000 that a newborn baby will die before reaching age five, if subject to age-specific mortality rates of the specified year.</td>
<td>United Nations</td>
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<td>Universal Health Care Service coverage index</td>
<td>Health</td>
<td>Coverage of essential health services (defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn, and child health, infectious diseases, noncommunicable diseases, and service capacity and access, among the general and the most disadvantaged population). The indicator is an index reported on a unitless scale of 0 to 100, which is computed as the geometric mean of 14 tracer indicators of health service coverage. The tracer indicators are as follows, organized by four components of service coverage: (1) Reproductive, maternal, newborn, and child health (2) Infectious diseases (3) Noncommunicable diseases, and (4) Service capacity and access. See the 2019 monitoring report for the tracer indicator within each component.</td>
<td>World Health Organization</td>
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<tr>
<td>Gini index, disposable income</td>
<td>Income inequality</td>
<td>The Gini index measures the extent to which the distribution of income (in this case, disposable income) among individuals or households within an economy deviates from a perfectly equal distribution. The Standardized World Income Inequality Database (SWIID) Gini index provides a wider coverage of income inequality data across countries and over time.</td>
<td>The Standardized World Income Inequality Database</td>
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<td>Youth unemployment</td>
<td>Labor</td>
<td>Labor force participation rate for ages 15–24 is the proportion of the population ages 15–24 that is economically active: all people who supply labor for the production of goods and services during a specified period.</td>
<td>International Labour Organization</td>
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<td>Employment to population, total</td>
<td>Labor</td>
<td>The employment-to-population ratio is the proportion of a country’s population that is employed. Employment is defined as persons of working age who, during a short reference period, were engaged in any activity to produce goods or provide services for pay or profit, whether at work during the reference period (that is, who worked in a job for at least one hour) or not at work due to temporary absence from a job, or to working-time arrangements. Ages 15 and older are generally considered the working-age population.</td>
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<td>Self-employed</td>
<td>Labor</td>
<td>Self-employed workers are those workers who, working on their own account or with one or a few partners or in cooperative, hold the type of jobs defined as “self-employment jobs.” That is, jobs where the remuneration is directly dependent upon the profits derived from the goods and services produced. Self-employed workers include four subcategories of employers, own-account workers, members of producers’ cooperatives, and contributing family workers.</td>
<td>International Labour Organization</td>
</tr>
<tr>
<td>Active labor market policies</td>
<td>Labor</td>
<td>Response to the survey question “In your country, to what extent do labor market policies help unemployed people to reskill and find new employment (including skills matching, retraining, and so on)?” [1 = not at all; 7 = to a great extent]</td>
<td>World Economic Forum</td>
</tr>
</tbody>
</table>
| Private vs. public credit       | Private sector inclusion | Public credit: Credit to government and state-owned enterprises to GDP (percent)  
Private credit: Private credit by deposit money banks to GDP (percent)  
The ratio is calculated as private credit over public credit. | International Financial Statistics                           |
| Extent of market dominance      | Private sector inclusion | Response to the survey question “In your country, how do you characterize corporate activity?” [1 = dominated by a few business groups; 7 = spread among many firms] | World Economic Forum                                         |
| Financing of SMEs               | Private sector inclusion | Response to the survey question “In your country, to what extent can small and medium enterprises (SMEs) access finance they need for their business operations through the financial sector?” [1 = not at all; 7 = to a great extent] | World Economic Forum                                         |

Sources: Global Findex Database; International Financial Statistics; International Labour Organization; International Telecommunications Union; Inter-Parliamentary Union; Standardized World Income Inequality Database; The 2018 World Press Freedom Index; UNESCO; UNICEF; World Bank; World Economic Forum; World Health Organization; and Worldwide Governance Indicators.

### Rest-of-the-World Country List

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<th>Analytical Group</th>
<th>Income Group</th>
<th>Country</th>
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<td>EDE</td>
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</tr>
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(continued)
### ANNEX TABLE 1.2.1 (continued)

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<th>Income Group</th>
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</tr>
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<td>RoW LIC</td>
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<td>South Africa</td>
<td>ZAF</td>
<td>SSA</td>
<td>RoW EM</td>
</tr>
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</table>

Source: IMF World Economic Outlook.

Note: The table uses International Organization for Standardization (ISO) country codes. AE = advanced economies; CCA = Caucasus and Central Asia; EDA = Emerging and Developing Asia; EDE = Emerging and Developing Europe; LAC = Latin America and the Caribbean; MENA = Middle East, North Africa, Afghanistan, and Pakistan; MENA AE = MENA advanced economies; MENA EM = MENA emerging markets; MENA LIC = MENA low-income countries; RoW AE = rest-of-the-world advanced economies; RoW EM = rest-of-the-world emerging markets; RoW LIC = rest-of-the-world low-income countries; SSA = sub-Saharan Africa.
Annex 1.3.
Inclusive Growth Indexes

We build the inclusive growth index using eight subindices based on the four pillars of inclusive growth. For each subindex, we use a series of indicators described in Table 1.1. The selection of indicators aims to strike a balance between their relevance for our purposes and the country coverage—while an indicator may be very relevant for measuring a particular aspect of inclusion, we do not include it if it is not available for all countries in our sample. We also keep the selection of indicators relatively parsimonious, by choosing those that have a clear interpretation, come from well-established data sources, and have a proven “track record” in the literature. Most of the data comes from the International Labour Organization, IMF, United Nations Educational, Scientific, and Cultural Organization, the World Bank, the World Economic Forum, and World Health Organization.

We then select three to five indicators for each index (except for income inequality, for which we only use the income Gini coefficient). The values of each indicator are standardized into z-scores, as we subtract the sample mean and divide the difference by the sample standard deviation, and then are translated into standard scores from 0 to 100 (0 as the worst performer and 100 as the best performer). The indexes are then built by aggregating these standardized scores, using equal weights.\(^6\) For each index, we (1) compare the average for MENA economies with averages for the other six groups (advanced economies, Caucasus and Central Asia, sub-Saharan Africa, Emerging and Developing Asia, Emerging and Developing Europe, Latin America and the Caribbean), (2) look at differences across levels of income by comparing averages for GCC economies, MENA EMs, and LICs with their respective world peers, (3) look at the values for the MENA region economies comparing them with the regional average.

---

\(^6\) There are various ways to standardize variables for index construction, but the z-score is one of the most commonly used methods (OECD 2008).
### ANNEX TABLE 1.3.1

<table>
<thead>
<tr>
<th>Country Name</th>
<th>ISO3</th>
<th>Total Index Score</th>
<th>Income Inequality</th>
<th>Access to Education</th>
<th>Access to Health Services</th>
<th>Financial Inclusion</th>
<th>Labor Market Inclusion</th>
<th>Private Sector Inclusion</th>
<th>Gender Inclusion</th>
<th>Quality of Governance</th>
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</table>

Source: IMF staff calculations.
Note: MENA = Middle East, North Africa, Afghanistan, and Pakistan; RoW = rest of the world. See Annex Table 1.2.1 for rest of world country list. The table uses International Organization for Standardization (ISO) country codes.
## ANNEX TABLE 1.3.2
### MENA Indicator Level Scores (0–100 from worst to best)

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<th>DZA</th>
<th>EGY</th>
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<th>JOR</th>
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(continued)
## ANNEX TABLE 1.3.2 (continued)

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<th>TUN</th>
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<th>RoW Average</th>
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<td>Proportion of seats held by women in national parliaments</td>
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<td>Control of Corruption: Estimate</td>
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<td><strong>Empowerment</strong></td>
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<td>Regulatory Quality: Estimate</td>
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<td>Rule of Law: Estimate</td>
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</table>

Source: IMF staff calculations.
Note: MENA = Middle East, North Africa, Afghanistan, and Pakistan; RoW = rest of the world. See Annex 1.2.1 for rest-of-the-world country list. The table uses International Organization for Standardization (ISO) country codes.
REFERENCES


CHAPTER 2

Inclusiveness, Growth, and Stability

CHIARA MAGGI • XIN TANG

INTRODUCTION

Achieving strong, sustainable, and inclusive growth has been an important priority for policymakers across the world since at least the global financial crisis. The COVID-19 pandemic has made inclusive growth all the more important and achieving the 2030 Sustainable Development Agenda even more challenging, as the economic costs of the crisis fell disproportionately on the most vulnerable segments of the population.

Even before the pandemic, countries in the Middle East and North Africa (MENA) region were facing lackluster growth and were relying on a model of development that had been distributing the benefits of economic growth to only a few segments of the population, which had fueled discontent and, in some cases, led to political and economic instability. For these countries, the pandemic represents an opportunity to rethink their model of development and accelerate reforms that allow the sharing of economic gains more equally across the population in order to raise living standards for all.

Making growth more inclusive is first and foremost a moral and ethical imperative. However, are more inclusive economies also able to grow faster and show more resilience against negative shocks? This question is the focus of this chapter, and to address it, we follow a two-pronged strategy. First, we briefly and selectively review recent economic literature on the channels through which more inclusiveness could boost economic activity and strengthen economic stability. Then, we present a general equilibrium model, which captures a few key distortions that affect inclusiveness in both factor and product markets in the MENA region, and quantify the impact of removing such distortions on both growth and economic stability.

DOES MORE INCLUSIVENESS LEAD TO ECONOMIC GROWTH AND STABILITY?

Inclusiveness is a multifaceted phenomenon that encompasses many socioeconomic dimensions and could affect economic growth and stability through many channels. The causality link can also be reversed, as the degree of inclusiveness can be a consequence of economic growth and stability (see Cerra, Lama, and Loayaza 2021). In this section, we focus on the potential implications of inclusiveness for growth and stability and organize our selective literature survey around the four main pillars of inclusiveness highlighted in Chapter 1: benefit sharing, opportunity, participation, and empowerment.

Growth

Benefit sharing

Severe inequality in income distribution threatens economic growth through at least four channels. First, it could increase the risk of political instability and reduce incentives for domestic and foreign investment (Barro 2000; Banerjee and Duflo 2005; Bloom 2009; Aguiar and Amador 2011; Azzimonti 2018). Second, it could prevent achieving a broad consensus on economic policies (Alesina and Rodrik 1994; Azzimonti 2011; Jaimovich and Rebelo 2017). Third, it may distort incentives by causing individuals to divert their efforts toward securing favored treatment or protection, resulting in resource misallocation, corruption, and nepotism (Stiglitz 2012). Finally, to the extent that poorer households are unlikely to generate demand for new products, it can hinder the development of domestic industrial sectors (as producers will not be able to take full advantage of opportunities from returns to scale) (Murphy, Shleifer, and Vishny 1989; Matsuyama 2002; Holmes and Stevens 2014).

Other papers have noted mechanisms through which some degree of income inequality could favor growth. “Excessive” income redistribution policies could harm economic growth by discouraging labor supply (Heckman, Lochner, and Taber 1998), investment (Chamley 1986; Bénabou 2002; Krueger and Ludvig 2016), or research and development activities (Bloom, Griffith, and Van Reenen 2002; Agrawal, Rosell, and Simcoe 2020). As household saving

1 Shant Arzoumanian has provided outstanding research assistance.
rates rise with the level of income, a strong redistribution of resources may also lower the aggregate investment rate (Barro 2000). Moreover, large setup costs for investment implies that a certain degree of concentration of asset ownership could be necessary for business development and economic growth (Barro 1997, 2000). Others have made the argument that some degree of income inequality may make it easier for developing economies to accumulate the human capital necessary to successfully adopt frontier technology or to access international markets (Barro 1997, 2000; Porzio 2017).

It is therefore not surprising that cross-country evidence on the causal link between income distribution and economic growth does not yield definitive conclusions. The omitted variable bias (as many factors tend to drive both inequality and growth simultaneously, including tax and transfer systems, technological change, product market barriers, access to finance) adds to the challenge of establishing a causal relationship between the two (Banerjee and Duflo 2003). In general, cross-sectional regressions are more likely to find a negative relationship between income inequality and growth than panel regressions. Results from cross-country empirical analyses tend to depend on the sample of countries, the period of coverage, and the methodology used. For instance, Alesina and Rodrik (1994) and Perotti (1996) find an overall tendency for income inequality (proxied by Gini coefficient) to cause lower economic growth. Barro (2000) instead shows a negative effect of inequality on growth for poor countries and a positive one for rich countries (for which high-quality institutions make it easier to channel higher savings into productive investment). Among papers that use panel regressions, Forbes (2000) and Cingano (2014) find that higher inequality leads to higher economic growth.

Besides its impact on growth rate, another strand of the literature has investigated the relationship between inequality and the persistence of economic growth. Berg and Ostry (2017) and Berg and others (2018) find that longer growth spells are robustly associated with more equality in the income distribution. This relation holds even when other determinants of growth duration—external shocks, level of development, institutional quality, openness to trade, and macroeconomic stability—are considered. Consistently, Dabla-Norris and others (2015) find an inverse relationship between the income share accruing to the top 20 percent of the distribution and economic growth over a five-year horizon, as the higher saving associated with greater inequality does not lead to more investment in the medium term.

Opportunity

While there is a strong consensus on the positive link between education and economic growth, identifying and quantifying a causal relationship between the two is far from obvious. First, government investment in education is not random. More developed economies have greater institutional and financial resources to foster investment in health and education, which point to a reverse causality issue. Second, empirical research is often based on crude proxies for education, such as average years of schooling, which weigh equally an extra year of primary school and one at a more advanced level of education. Two countries with the same average years of schooling might thus grow at different rates if the underlying education levels (in primary, secondary, and tertiary education) are different (Aghion and others 2009). Acemoglu, Aghion, and Zilibotti (2006) show that higher education might be more growth-enhancing in countries close to the technological frontier, while countries with low technological capacity may benefit more from primary and early secondary education and vocational programs closely linked to industrialization strategies (since their growth relies more on importing technology from the former).2

Participation in economic life

Enhancing participation in labor markets should allow an economy to fully utilize its human resources and help maximize its growth potential. In many emerging and developing countries, and in the MENA region, one obstacle to labor market participation is that high-quality jobs in the private sector are scarce (Purfield and others 2018; Ahn and others 2019). This may reflect the persistence of widespread barriers to private firms’ entry and expansion, including from unequal access to factors of production, especially compared to state-owned enterprises (Song, Storesletten, and Zilibotti 2011; Cavakanti and Santos 2021); underdeveloped financial systems (Buera, Kaboski, and Shin 2011; Buera and Shin 2013; Dabla-Norris and others 2021); or the absence of good governance and efficient institutions, which encourages rent-seeking and distorts incentives (Murphy, Shleifer, and Vishny 1991; Acemoglu, Johnson, and Robinson 2001; Stiglitz 2012; Bai and others 2019). Barriers to private sector activity affect growth potential by inducing misallocation of production factors (physical, entrepreneurial, and human capital). For instance, Buera, Kaboski, and Shin (2011) find that the difference in financial development can explain almost 80 percent of the difference in output per worker between Mexico and the United States in 2002. Midrigan and Xu (2014) find that financial frictions that prevent firms’ entry in China explain about 40 percent of its gap in total factor productivity level compared to South Korea, with another 5 to 10 percent of the difference being accounted for by the impact of such frictions on incumbent firms.

2 For the same reason, Aghion and others (2009) find that in US states at the technological frontier, each thousand dollars of spending in research and development raises the number of patents by 6 per 100,000 people, while an exogenous increase in two-year college education has no discernable effect.
Low participation in labor markets is generally found among women, young workers, and minorities. Hsieh and others (2019) find that between 20 percent and 40 percent of the growth in US output per person between 1960 and 2010 can be explained by the greater participation of women and minorities in labor markets. Obstacles to labor markets can also impede growth on account of the underinvestment in education by the most disadvantaged categories and the human capital depreciation suffered during unemployment spells, especially of long periods (see, for instance, Kaitz 1970; Mincer and Ofek 1982; Acemoglu 1995; Mroz and Savage 2006; Görlach and de Grip 2008; Abraham and others 2019). Another obstacle to full participation in economic life is represented by the large share of informal activity and employment, which is also relevant in the MENA region (IMF 2021). Informal workers lack access to social protection systems, have little incentive or opportunity to build their human capital, and generally work in worse conditions than in formal jobs. At the same time, informal firms tend to operate on a smaller scale and with limited access to credit; their owners are also less educated, all of which curbs their investment and expansion prospects (La Porta and Shleifer 2014). The misallocation of resources associated with segmented labor markets provides one explanation for why a number of studies find that the size of the informal sector accounts for a significant portion of the difference in output per capita between rich and poor countries. Prado (2011), for instance, finds that informality due to regulations and taxation of formal activities accounts for at least 5 percent of the output per capita difference between the richest and poorest countries.

Among all dimensions of labor market segmentation, gender is perhaps the most widespread form, particularly in the MENA region (see also Chapter 5 of this book). From a simple growth accounting perspective, increasing female participation in labor markets implies higher economic growth (Lagarde 2019). Aguirre and others (2012) suggest that raising the female labor force participation rate to male levels would raise GDP by 5 percent in the United States, 9 percent in Japan, 12 percent in the United Arab Emirates, and 34 percent in Egypt. Ostry and others (2018) estimate that closing the gender gap in labor force participation could increase GDP by between 10 percent and 80 percent, depending on the initial value of female participation. Additional growth dividends from reducing gender gaps arise from reducing the overall misallocation of talents (Cuberes and Teignier 2016; Hsieh and others 2019; Cool, Fernandez, and Patacchini 2020). In particular, Cuberes and Teignier (2016) find that GDP losses from the underused economic potential of women ranges from between 10 percent in Europe and Central Asia to 40 percent in the Middle East and North Africa. In addition, closing the gender gap boosts human capital accumulation in the long term, as greater inclusion and empowerment of women have positive implications on the development outcomes of their children (Duflot 2012).

Empowerment in social and political life

An important dimension of empowerment is governance. The quality of governance plays a key role in the provision of public services and goods, and in promoting inclusiveness. As highlighted by Ivanyana and Salerno (2021), poor governance harms growth by undermining the business climate, creating distrust in institutions, and limiting revenue collection as well as distorting expenditure (see also IMF 2016; North and others 2008). Advanced economies that rank in the top quartile of the corruption index estimated by IMF (2019) collect on average 4.5 percent of GDP more in tax revenues than those in the bottom quartile. In emerging market economies, the difference is 2.75 percent of GDP and it is about 4 percent of GDP in low-income countries. Moreover, the share of the budget dedicated to education and health is one third lower in countries that are perceived as having higher levels of corruption (IMF 2019).

Empowerment refers also to active involvement of women and minorities in the political life of a country (Pande and Topalova 2013). Evidence from the literature shows that mandating exposure to female leaders, such as by imposing electoral quotas, helps voters appreciate that women can be competent leaders and lessens the bias against female leadership after repeated exposure (Beaman and others 2009). This, in turn, raises the aspirations that parents have for their daughters, and teenage girls have for themselves, which leads to improvements in educational attainment (Beaman and others 2012).

Stability

A large literature documents that lack of inclusion can cause macroeconomic instability, both as a source of instability in itself and because it could reduce an economy’s resilience to shocks:

• **Source of instability.** A low degree of inclusion can generate frustration and discontent about the status quo, causing a loss of confidence in current institutions, eroding social cohesion, and clouding future economic prospects (Stiglitz 2012; Chetty and others 2017). In extreme cases, this could create significant turmoil and undermine the overall functioning and stability of a society. Events related to the 2011 Arab Spring show that MENA countries are vulnerable in this regard (Purfield and others 2018). The economic challenges emerging from the COVID-19 pandemic may make such risks even more concrete (IMF 2021). Lack of inclusion can also lead to extremely polarized societies, where political changes through the electoral cycle are more likely to be accompanied by sharp turnarounds in public policies, which could destabilize the economy (Azzimonti and Talbert 2014).

• **Reduced resilience to shocks.** Economies with more unequal distribution of income also usually have a
greater concentration of wealth and debt, both of which amplify the impacts of shocks (Gertler and Gilchrist 1994; Kiyotaki and Moore 1997). Kumhof, Ranciere, and Winant (2015) present a theoretical model where higher leverage and financial crises are the endogenous result of a growing share of income accruing to rich households. The model is consistent with US data showing that the periods preceding the Great Depression (1920–29) and the global financial crisis (1983–2008) both exhibited a large increase in income inequality. Significant income inequality could also increase the volatility of aggregate demand, given that poorer households tend to have higher marginal propensity of consumption (Carroll and Kimball 1996; Carroll 1997; Heathcote and Perri 2018). More generally, since the global financial crisis, new business cycle literature has developed that, by incorporating income and wealth heterogeneity among households, shows the policies that reduce these inequalities can reduce macroeconomic fluctuations (Ahn and others 2018; Kaplan, Moll, and Violante 2018).

Greater female labor force participation could help economic stability. A number of studies show that female labor supply is less cyclical than male labor supply, as women tend to work more in recessions to compensate for their partner’s job loss (Parker and Skoufias 2004; Shore 2010; Albanesi 2020; Guner, Kulikova, and Valladares-Esteban 2020). Ortigueira and Siassi (2013) find that, while wealth-rich households use mainly savings to smooth consumption across unemployment spells, wealth-poor households rely on increased labor supply from a spouse (generally women). These results are consistent with the female labor supply providing a household insurance mechanism also known as the “added worker effect.” Sahay and Cihak (2018) find that greater representation of women in banking leadership is associated with more financial stability. Finally, Kazandjian and others (2019) find that reducing gender gaps helps low-income and developing countries diversify their exports, and therefore better cope with the effects of idiosyncratic, negative economic shocks.

**INCLUSION AND THE MACROECONOMY: A QUANTITATIVE EXAMPLE**

In this section, we present a general equilibrium model that captures some of the most important barriers to inclusion in the MENA region. As discussed in Chapter 1 and Purfield and others (2018), among those barriers are those that prevent the development of the private sector and the lack of access to financial services. The model is calibrated to an average MENA economy along a few key dimensions, such as the firm size distribution and private sector credit-to-GDP ratio. It is then used to assess how inclusion-enhancing reforms that remove market distortions, improve governance capacity, and deepen the financial sector could lead to higher and more resilient economic growth.

**The Model**

We consider a model in which an efficient and distortion-free private sector plays a key role in creating jobs and achieving an efficient allocation of resources. The model contains individuals that are heterogeneous in their income, wealth, and entrepreneurial talent ($\alpha$). Individuals can choose between working as an employee or becoming an entrepreneur. If individuals choose to be employees, their source of income is their wage $\omega$; if they decide to become entrepreneurs, they will run a firm that operates with a production function that combines entrepreneurial talent $e$, rental capital $k$, and hired labor $l$:

$$y = e(l^{a(1-\alpha)})^{1-\nu}$$ (2.1)

where $\alpha$ is the capital income share, and $1 - \nu$ governs the returns to scale at the firm level (Lucas 1978). The higher $1 - \nu$ is, the more production will be concentrated among more productive firms. Notice that in the context of our model, entrepreneurial talent is equivalent to firm productivity.

Without any friction, firms choose the size (the amount of capital and labor) which maximizes profits $\pi$ based on their productivity and factor prices ($\omega$ and $\tau$):

$$\pi(e) = \max_{[k,l]} \{e(l^{a(1-\alpha)})^{1-\nu} - w\ell - rlk\}$$ (2.2)

Because profits increase with entrepreneurial talent, people with higher $e$ always choose to become entrepreneurs, while those with lower $e$ will enter the labor market as employees. More productive firms will also have a larger size.

The model features the following two sets of frictions and distortions:

- **Governance capacity constraint and product market distortions.** These frictions alter market neutrality and restrict the expansion of productive firms. It can be thought of as arising from (1) corruption and weak law enforcement (Cooley and Quadrini 2001; Clementi and Hopenhayn 2006; Akcigit, Alp, and Peters 2021); (2) dominant market positions of state-owned enterprises, which are often found to be less productive and benefit from more favorable access to credit or looser regulation (Kornai, Maskin, and Roland 2003; Song, Storesletten, and Zilibotti 2011); or (3) red tape, local protectionism, and high transportation costs that stifle domestic competition (Eberhardt, Wang, and Yu 2016; Tombe and Zhu 2019). To keep the model tractable, following the standard practice in the literature (Restuccia and Rogerson 2008; Hsieh and Yu 2016; Tombe and Zhu 2019), we capture this friction as a generic “tax” $\tau$ (or “subsidy” when $\tau < 0$) imposed on a firm’s revenue,

$$\pi(e) = \max_{[k,l]} \{(1-\tau)e(l^{a(1-\alpha)})^{1-\nu} - w\ell - rlk\}$$ (2.3)

Because in reality, more productive and profitable firms are more likely to be the targets of these distortions, the model assumes that more productive firms are subject to a higher probability of being taxed, as in Buera and Shin
(2013). Notice that a firm subject to the tax $\tau$ will earn less profits and hence run at a smaller scale compared to the level implied by its productivity $e$, while a firm that receives a subsidy will run at a larger scale. The result is a reallocation of resources from more productive firms to less productive ones, which hurts aggregate productivity, reduces wages, and limits the private sector’s ability to generate jobs.

- **Financial frictions**: In the frictionless economy, firms can borrow freely from financial markets to finance their capital investment. Thus, the optimal allocation of capital and labor is independent of the distribution of wealth; it is determined fully by the underlying distribution of firm productivity. Financial frictions, however, by restricting access to external finance, create a discrepancy between the distribution of wealth and entrepreneurial talent. Talented entrepreneurs with insufficient financing would need to accumulate capital over time to run their business at full capacity, making their market share inefficiently lower than in the frictionless benchmark. Similar to the other distortions, financial constraints also lead to a misallocation of resources and a larger presence of less productive firms. To implement financial constraints in the model, we assume that an entrepreneur with personal wealth $a$ can rent capital $k$ up to $\lambda a$, where $\lambda$ captures the degree of financial development. When $\lambda = 1$, $k \leq a$, meaning that all capital investment must be financed internally (financial autarky); as $\lambda \to \infty$, entrepreneurs can rely entirely on external finance (financial markets are complete).\(^3\)

### Calibration and Simulations

The model is calibrated following the strategy in Guner, Ventura, and Xu (2008). The frictionless economy is calibrated to match that of the United States, assumed to best represent a relatively distortion-free benchmark economy.\(^4\) The governance and product market distortions and financial friction is calibrated so that the firm size distribution and external finance-to-GDP ratio match those of an average MENA economy.\(^5,6\) The underlying assumption is that

\[^3\] The collateral requirement is, of course, only one aspect of potential financial frictions. In the terminology of Dabla-Norris and others (2021), it captures the depth of the financial system. Two other dimensions that they consider are the width and efficiency of the financial system, proxied by the fraction of firms with access to the financial system and the interest rate spread, respectively.

\[^4\] Most parameters describing the frictionless benchmark are taken from Buera and Shin (2013).

\[^5\] The average MENA economy is built as a weighted average of Afghanistan, Djibouti, Egypt, Iraq, Jordan, Lebanon, Mauritania, Morocco, Sudan, Tunisia, and Yemen, using purchasing power parity–adjusted GDP (average from 2003 to 2019) as weights.

\[^6\] The model is set (1) to match the share of workers employed by the largest quintile of firm distribution, estimated for the MENA region from the latest vintage of the World Bank Enterprise Survey data, and (2) to match the external finance-to-GDP ratio to the MENA region’s average over 2006–17, obtained from the World Bank’s Financial Development and Structure Dataset.

Using the calibrated model, five sets of counterfactual simulations are conducted. The first two remove the governance and product market distortions (scenario one) and financial friction (scenario two) to analyze their macroeconomic impact separately. The next simulation removes both constraints together (scenario three) to examine the interaction between the two types of distortions. We then consider a scenario where authorities manage to engineer an exogenous increase in total factor productivity withoutremedying the underlying distortions (scenario four). Lastly, we look at the effect of removing the distortions in a more dynamic economic environment, one in which firms’ turnover rate doubles (scenario five).

### Removing distortions

Removing governance and product market distortions in the MENA region by setting $\tau$ to zero leads to substantial improvement in the efficiency of the economy, with aggregate output, consumption, and capital stock increasing by 79, 69, and 125 percent, respectively (Table 2.1, column 1). As these distortions affect more productive firms disproportionately, removing them would allow productive firms to expand and take up a much larger share of the market, causing labor demand per firm to increase by 131 percent and wages by 67 percent across the region. Production concentrates more among productive firms, with the employment share of the top 10 percent firms (the largest and most productive) increasing by 30 percent. Higher wages, in turn, would drive the least productive firms out of the market, which can be seen from the 54 percent decline in number of firms, and further raises the average productivity of the remaining firms.

The external finance-to-GDP ratio decreases, as the financial system cannot fully accommodate the greater capital demand from large firms. Instead, these firms will have to rely mostly on retained earnings for financing.

As expected, removing financial constraints by setting $\lambda \to \infty$ also improves economic efficiency across the region, with aggregate output, consumption, and capital stock increasing now by 23, 22.5, and 32 percent, respectively (Table 2.1, column 2). The mechanisms, however, are different, which explains the much more moderate gains. Removing the financial friction improves access to financial resources, allowing talented but wealth-poor entrepreneurs...
to expand the scale of production. However, the most productive firms benefit less from the removal of financial distortions, compared to firms with medium-level productivity, for two reasons. First, because the governance and product market distortions are heavier on more productive firms, the extent to which they can benefit from deeper financial markets is limited. Second, more productive firms are also able to circumvent financial constraints by saving and self-financing (Moll 2014; Midrigan and Xu 2014). Overall, the magnitude of resource reallocation is limited. This can be seen by noticing that despite the 11 percent increase in average labor demand per firm, such an increase is driven mostly by mid-sized firms, as the employment share by the largest, most productive firms shrinks by 9 percent. Consequently, better access to financial resources causes only 10 percent of the less productive firms to drop out of the market, and average productivity increases marginally, by 2 percent.

To gauge the interaction between the two types of distortions, we remove both at the same time and the economy is set back to its frictionless benchmark (Table 2.1, column 3). This leads to higher efficiency gains than the sum of relaxing each distortion independently. For instance, aggregate output would increase by 128 percent, which is higher than the 102 percent from adding up individual gains. This implies that different distortions can intensify each other and inflict larger overall damage, and that a more balanced reform would increase by 128 percent, which is higher than the 102 percent from adding up individual gains. This implies that different distortions can intensify each other and inflict larger overall damage, and that a more balanced reform agenda, which improves policies and institutions on multiple fronts in tandem, has the potential to bear more fruit.

**Pro-inclusive reforms versus direct productivity shock**

In scenario four, aggregate productivity is increased by 50 percent (the same improvement of average firm-level productivity when governance and product market distortions are removed in scenario one) while keeping both distortions untouched. This scenario is used to proximate government intervention that successfully boosts growth (for example, by investing in public infrastructure) but without addressing distortions that limit private sector participation. This scenario (Table 2.1, column 4) is compared with scenario one to illustrate the additional gains from structural reforms that improve inclusiveness. The results show that while reforms in scenario one lead to similar gains in aggregate output, they improve various welfare metrics significantly; consumption, average income, and wage under scenario one all witness a greater-than-50-percent additional increase, pointing to the more efficient use of resources (especially capital) than in scenario four. Moreover, in scenario four, despite the significant increase in productivity, existing distortions prove to be a strong obstacle to job creation. The increase in investment associated with the productivity shock is only able to add 2 percent more jobs, as it mainly benefits the incumbents. In contrast, structural reforms that remove distortions and create better opportunities for talented entrepreneurs have the potential to generate 130 percent more jobs.

**Adapting to a changing world**

Establishing an economy that provides equal opportunity for everyone with talents can be even more important in a dynamic, fast-changing world. Limited capability to adapt to such changes may contribute to explaining why many developing countries were often able to ignite growth but failed to sustain it. To show how a more volatile external environment makes it even more important to implement reforms that improve inclusiveness, we consider a scenario in which firms’ turnover rates double, which can be thought of as firms facing a more volatile demand or new technologies becoming available to firms at higher frequency. In the model, it is assumed that each period entrepreneurs retain their current productivity with a probability \(\psi\). In scenario four, \(\psi\) is lowered and the experiments in scenarios one through three are repeated as before. The results are summarized in columns 1 to 3 of Table 2.2.

Comparing Table 2.2 with Table 2.1, the data shows that the loss of efficiency, caused by financial friction, becomes significantly larger. Two reasons are behind the results. First, with a higher turnover rate, reallocating resources from less...
on the data and research methodology adopted, there is a consensus that improving inclusiveness in its various dimensions could indeed allow an economy to tap into its full growth potential, achieve an efficient allocation of resources, and strengthen its resilience to shocks.

Modeling some of the distortions normally associated with lack of inclusiveness allows us to illustrate the channels through which inclusion-friendly structural reforms could improve macroeconomic outcomes. The model we build and calibrate for the MENA region in this chapter shows that removing key distortions that prevent the development and the efficient functioning of the private sector could lead to higher aggregate output, higher wages, and more jobs. Moreover, because different sources of distortions interact and intensify one another, a package of reforms that addresses them simultaneously promises to deliver better results than proceeding through a stepwise approach.

### CONCLUSIONS

A large literature has studied the link between inclusion and economic growth and stability. While identifying and quantifying such links remain difficult, and somewhat dependent

8 Though it appears that the costs from governance and product market distortions are smaller among several dimensions (for instance, wage loss, labor demand per firm), these results reflect the fact that a higher turnover rate reduces the average firm size, and hence the total amount of distortions imposed on the economy.

<table>
<thead>
<tr>
<th>Statistics</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output</td>
<td>63.4</td>
<td>30.8</td>
<td>136.8</td>
</tr>
<tr>
<td>Capital</td>
<td>103.8</td>
<td>43.3</td>
<td>211.0</td>
</tr>
<tr>
<td>Consumption</td>
<td>64.4</td>
<td>40.1</td>
<td>135.1</td>
</tr>
<tr>
<td>External finance to GDP</td>
<td>−50.3</td>
<td>461.7</td>
<td>597.3</td>
</tr>
<tr>
<td>Number of firms</td>
<td>−32.1</td>
<td>−20.3</td>
<td>−62.6</td>
</tr>
<tr>
<td>Average firm total factor productivity</td>
<td>25.0</td>
<td>2.9</td>
<td>71.6</td>
</tr>
<tr>
<td>Average income</td>
<td>68.4</td>
<td>11.3</td>
<td>101.0</td>
</tr>
<tr>
<td>Labor demand per firm</td>
<td>53.3</td>
<td>29.0</td>
<td>187.9</td>
</tr>
<tr>
<td>Wage</td>
<td>64.2</td>
<td>37.3</td>
<td>130.4</td>
</tr>
<tr>
<td>Interest rate</td>
<td>7.2</td>
<td>169.5</td>
<td>120.7</td>
</tr>
<tr>
<td>Labor share by top 10% firms</td>
<td>26.9</td>
<td>−8.6</td>
<td>28.7</td>
</tr>
<tr>
<td>Labor share by top 20% firms</td>
<td>15.2</td>
<td>−7.9</td>
<td>17.3</td>
</tr>
<tr>
<td>Income share by top 10% people</td>
<td>2.9</td>
<td>−28.0</td>
<td>−18.1</td>
</tr>
<tr>
<td>Income share by top 20% people</td>
<td>2.2</td>
<td>−22.0</td>
<td>−14.2</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations.
Annex 2.1

We use the model of Buera and Shin (2013). The basic structure of the model is as explained in the main text. The Annex provides additional mathematical details.

Preference and technology

Households have CRRA preference:

\[ \sum_{t=1}^{\infty} \beta^{t-1} \frac{c_t^{1-\sigma} - 1}{1-\sigma} \]

(2.4)

where \( t \) is the initial period, \( \beta \) is the discount rate, \( \sigma \) is the risk averse parameter, and \( c_t \) is the consumption.

In each period \( t \), each household can choose to work for wages \( w_t \) or operate a firm according to their entrepreneur talent \( e \). A firm then combines entrepreneur talent \( e \) (which is also equivalent to firm-level total factor productivity in our model), capital \( k \) and labor \( l \) to produce according to technology

\[ f(e, k, l) = e^{k^{\alpha}l^{1-\alpha}} \]

(2.5)

We assume that \( e \in \mathcal{E} \) is stochastic. With probability \( \psi \), households keep their productivity in \( t+1 \). Otherwise, with probability \( 1 - \psi \), they draw a new level of \( e \) from a time-invariant distribution. We use \( \mu(e) \) to represent the probability density of this distribution.

Households’ saving can be converted into productive capital in a one-on-one manner. Capital depreciates at rate \( \delta \). The market rental rate is \( r_t \). We assume a continuum of perfectly competitive financial intermediaries that channel saving to capital, which implies that the rental price firms pay is \( r_t + \delta \).

Distortions and friction

For financial friction, we assume that entrepreneurs’ capital rental \( k \) is limited by a collateral constraint \( k < \lambda a \), where \( a \) is their saving. When \( \lambda = 1 \), capital investment can only be financed by retained earnings, while when \( \lambda \to \infty \), the credit market is perfect.

We assume that the governance and product market distortions \( \tau \) are a random variable that takes two values: \( \tau_+ \) (tax) and \( \tau_- \) (subsidy). The distortions are correlated with productivity positively by assuming that the probability of an entrepreneur with productivity \( e \) being taxed is

\[ \Pr\{\tau = \tau_+ | e\} = 1 - \exp\{-qe\} \equiv \omega(e), \quad q > 0, \]

(2.6)

With \( q > 0 \), the probability that an entrepreneur with a higher \( e \) being taxed is higher.

Optimization problems

The Bellman equation of households is as follows. The state variables are wealth \( a \), talent \( e \), and distortion \( \tau \), with the latter two evolving exogenously. If a household chooses to be an employee, their choice variables are consumption \( c \) and saving \( a' \).

While if they choose to be an entrepreneur, they will first choose the optimal factor demand \( k \) and \( l \), both are intratemporal. After that, they engage in standard consumption-saving decisions.

\[ V(a; e, \tau) = \max_{c,a'} \left\{ \frac{c^{1-\sigma}}{1-\sigma} + \beta \left[ \psi V(a'; e, \tau) + (1-\psi) V(a', \tau') \right] \right\} \]

(2.7)

s.t.

\[ c + a' = \max \{ w, \pi(e, \tau, a) \} + (1+r)a \]

\[ \pi(e, \tau, a) = \max_{A_k, A_l} \left\{ (1-\tau)e^{(k^{\alpha}l^{1-\alpha})^{1-\gamma}} - \delta l - r k \right\} \]

In the above Bellman equation,

\[ E_{e, \tau} V(a'; e, \tau') = \sum_{e} \mu(e) \left[ \omega(e)V(a, e, \tau) + (1-\omega(e))V(a, e, \tau') \right] \]

The solution of the above problem consists of value function \( V(a; e, \tau) \), decision rules for consumption-saving \( c(a; e, \tau) \), \( a'(a; e, \tau) \) and factor demand \( k(a; e, \tau) \), \( l(a; e, \tau) \).
Competitive equilibrium

A competitive equilibrium consists of equilibrium prices \( \{w, r\} \), value function \( V(a; e, \tau) \), household decision rules \( \{c(a, e, \tau), a'(a, e, \tau), k(a, e, \tau), l(a, e, \tau)\} \) and cumulative distributions of households \( G(a, e, \tau) \) for any given policies \( \{\lambda, \tau\} \) such that

1. Given \( \{w, r\}, V(a, e, \tau) \) and \( \{c(a, e, \tau), a'(a, e, \tau), k(a, e, \tau), l(a, e, \tau)\} \) solve the optimization problem of households.
2. Prices \( \{w, r\} \) clear all markets:
   - Labor market:
     \[
     \sum_{a, e} \mu(e) \left\{ \alpha(e) \left[ \int_{g(e, \tau)} f(e, a, \tau, e) dG(a, e, \tau) - G(a, e, \tau) \right] \right\} + \left(1 - \alpha(e) \right) \int_{g(e, \tau)} f(e, a, \tau, e) dG(a, e, \tau) = 0. \tag{2.8}
     \]
   - Capital market:
     \[
     \sum_{a, e} \mu(e) \left\{ \alpha(e) \int_{g(e, \tau)} k(e, a, \tau, e) dG(a, e, \tau) \right\} + \left(1 - \alpha(e) \right) \int_{g(e, \tau)} k(e, a, \tau, e) dG(a, e, \tau) = 0. \tag{2.9}
     \]
   - Goods market is automatically cleared due to Walras’ Law.
3. Aggregate consistency of the joint distribution \( G(a, e, \tau) \):
   \[
   G(a, e, \tau) = \psi \left[ \int_{(e, a, \tau)} dG(v_1, e, \tau, a) du + (1 - \psi) \times \right]
   \sum_{a, e} \mu(e) \left\{ \alpha(e) \left[ \int_{(e, \hat{\tau}, \tau, e)} dG(v_1, \hat{\tau}, \tau, e) \right] + \left(1 - \alpha(e) \right) \int_{(e, \hat{\tau}, \tau, e)} dG(v_1, \hat{\tau}, \tau, e) \right\},
   \tag{2.10}
   \]
   and
   \[
   G(a, e, \tau) = \psi \left[ \int_{(e, a, \tau)} dG(v_1, e, \tau, a) du + (1 - \psi) \times \right]
   \sum_{a, e} \mu(e) \left\{ \alpha(e) \left[ \int_{(e, \hat{\tau}, \tau, e)} dG(v_1, \hat{\tau}, \tau, e) \right] + \left(1 - \alpha(e) \right) \int_{(e, \hat{\tau}, \tau, e)} dG(v_1, \hat{\tau}, \tau, e) \right\}. \tag{2.11}
   \]

REFERENCES


CHAPTER 3

Fostering Private-Sector-Led Growth in the MENA Region: A New Role for the State

SUCHANAN TAMBUNLERTCHAI • MONICA PETRESCU • MAHDI ANSARI

INTRODUCTION

The state has historically been a significant economic actor in the MENA region. In the decades following Arab independence, many MENA countries adopted development models based on state capitalism whereby the government spearheaded economic production, investment, and resource allocation. As part of these models, state-owned enterprises (SOEs) were used to support mandates beyond the solely commercial, including to promote industrial and social policies, manage nationalized assets, and create employment (OECD 2012; OECD 2013). Many SOEs in oil-importing countries, such as Jordan, Morocco, and Tunisia, have roots in enterprises inherited from colonial regimes or formed under strategic policies adopted immediately after independence (Amico 2017). Across the MENA region, new SOEs were, and continue to be, established to develop new sectors; for example, between 2001 and 2010, 350 SOEs were established in Morocco alone (OECD 2012). While the number of SOEs varies—ranging from over 300 in Algeria and Egypt to about 20 in Lebanon and Saudi Arabia, among countries with available data—they are key economic actors throughout the region.

The MENA region is at an important crossroad as the state-led growth strategy has begun to reach its limits. In the coming decade, over 100 million people will enter the MENA workforce. Meaningful jobs are vital for their inclusion in economic activities, ensuring their livelihoods, and preserving the social fabric. Strong state involvement may have been a mechanism for nation building in the MENA region in the past, but stagnating growth, high unemployment, and increased inequality in the region point to the need for a different strategy. The average annual total factor productivity growth during the last 10 years has been negative for many countries in the MENA region, and particularly low for oil producers (Figure 3.1). This is a cause for concern as prolonged periods of productivity decline are an eventual drag on economic growth (Eichengreen, Park, and Shin 2012). Yet despite the high levels of public consumption, investment, and employment, the availability and quality of public services have not kept up with the demands of the population. High public debt levels and eroded fiscal space—both exacerbated after the COVID-19 crisis—leave increasingly limited room for the state to continue to subsidize economic activities while also tackling the mounting social and development needs of the rapidly growing population.

Higher and more inclusive growth going forward requires a transition to private-sector-led activities. The low total factor productivity growth could in part reflect the inefficiencies and resource misallocation associated with the relatively large role of the state in the region. Although certain roles of the state, such as the development of legal and administrative institutions, or interventions to correct market failures (including building essential infrastructures) can have positive effects on productivity growth (Ghali 1998), various studies have shown that an excessively large government...
sector can generate inefficiencies and policy-induced distortions with a negative impact on overall productivity growth (see, for example, Barro 1991; Dar and AmirKhalkhal 2002; Loko and Diouf 2009). Several studies find that SOEs tend to underperform private sector firms, and are generally characterized by lower revenue, higher costs per employee, and weaker productivity. These gaps, in part, reflect the different nature of SOEs, many of which pursue public mandates rather than profit-maximizing goals. However, the lower productivity of public enterprises inevitably lowers the overall productivity of the economy—including indirectly by limiting private sector competition and dynamism—particularly when the public sector is large, as in the MENA region. Ensuring a more inclusive role for the private sector will be key for generating employment opportunities, particularly given over 90 percent of jobs in developing countries are created in the private sector (International Finance Corporation 2013).

This chapter makes the case for a new role for the state focused on addressing hurdles to private sector development in the MENA region, particularly those arising from the large state presence. Making way for the private sector to spur growth and job creation will not be without challenges. The entrenched state presence across economic sectors has given rise to various distortions that have limited the development of the private sector, requiring a comprehensive structural reform toward private-sector-led growth. This chapter will first look at stylized facts on the size of the state in the MENA region compared to other world regions. It then reviews the various distortions and barriers associated with long-term state interventions in economic activities in the region. It then empirically assesses the impact of SOEs on private sector development in the MENA region using firm-level panel data from Orbis over the period 2006–18 and concludes with some policy implications.

**HOW BIG IS THE STATE’S FOOTPRINT IN THE MENA REGION?**

The large state footprint in the MENA region is apparent in the region’s high levels of public consumption and investment. At close to 24 percent, the share of public consumption is larger than in any other region (except the Caucasus and Central Asia [CCA], which carries the Soviet legacy of centralized economies) and has shown limited signs of declining over the past two decades (Figure 3.2). Public investment accounts for one third of total investment in the MENA region, again behind the CCA but roughly in line with average levels in Africa and the Western Hemisphere countries. High public consumption and investment are fueled by a significant share of credit flowing to the public sector: about one third of domestic credit goes to the public sector in the MENA region compared to less than 25 percent in Europe and less than 20 percent in the CCA, the Western Hemisphere, and the Asia and Pacific regions (Figure 3.2).

Many countries in the MENA region also have high levels of public employment, usually coupled with relatively high compensation, leading to a high public wage bill. The public sector accounts for 19 percent of employment in the MENA region—a larger share than in sub-Saharan Africa, the Asia and Pacific, or the Western Hemisphere regions.

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3 See, for example, DeWenter and Malatesta (2001), Wang and Shailer (2018), IMF (2019), Jurzyk and Ruane (2021), and IMF (2020).

4 See Annex 3.1 for country groups.
The public sector wage bill is about 10 percent of GDP, higher than in all regions except Europe, and showing no signs of declining in recent decades. Governments in the region often perceived as “employers of first resort,” with public sector jobs often used as a mechanism to redistribute wealth or to provide social support. In the wake of the Arab Spring, real wage bills across the MENA region grew more rapidly as various governments increased public employment and compensation as a way to mitigate social discontent (Tamirisa and Duenwald 2018).

The size and scope of SOEs in the MENA region further attest to the large footprint of the state in the economy. The SOE footprint in the MENA region is, on average, larger than in Organisation for Economic Co-operation and Development (OECD) countries, albeit with significant heterogeneity among countries (Figure 3.3). Globally, SOEs are...
often established in sectors with high natural barriers to entry or high capital intensity (for example, mining, transport, communication), and in sectors where the social rate of return is higher than the private one (for example, health, education). Yet in addition to these “traditional” sectors, SOEs in the MENA region are also active in sectors usually occupied by private firms, including manufacturing and financial services (IMF 2021). In addition to the broad scope, the footprint of SOEs is also deep: MENA governments often hold shares in the largest companies in key economic sectors, such as mining and hydrocarbon, heavy industry (for example, cement production, steel refining), and telecommunications. SOE assets can be substantial, totaling more than the GDP in Morocco and over 50 percent of GDP in Egypt (IMF 2021; OECD 2013).

**DISTORTIONS ASSOCIATED WITH LONG-TERM STATE INTERVENTIONS**

In many MENA countries, SOEs suffer from low profitability and must balance commercial and noncommercial mandates. There is no regular comprehensive reporting on the financial performance of SOEs, while Figure 3.3, panel 3 suggests the overall SOE sector is profitable in some countries, many individual SOEs are in a weak financial position: IMF (2021) finds that almost 40 percent of SOEs in the MENA region incurred losses in 2019, including 30 percent of SOEs in Egypt and Morocco, over 50 percent of those in Afghanistan, and over two-thirds of the largest SOEs in Tunisia (IMF 2021). SOE losses can be sizable, ranging between 0.6 and 6 percent of GDP per year in Egypt, Iraq, Morocco, and Tunisia (World Bank 2015a). Often, poor SOE performance is a direct result of lack of autonomy to establish clear commercial mandates. The OECD (2013), for example, finds that in air transport and heavy industry, SOE profitability in the MENA region appears to depend on the extent of operational autonomy and the existence of a clear commercial mandate.

Several forms of direct and indirect support allow SOEs to survive even when operating at a loss. SOEs often benefit from direct fiscal support in the form of budget transfers or on-lending; this support is sizable, amounting to 2 percent of GDP in the region (Figure 3.4). SOEs also benefit from other privileges, such as exclusive rights to operate as monopolies; better or subsidized access to land; or the ability to circumvent bureaucratic red tape. For many countries (for example, Algeria, Iraq, Jordan, Kuwait, Libya, Qatar, Syria, Saudi Arabia, Tunisia, and Yemen), SOEs are de jure subject to the same tax system as private companies but de facto benefit from various exemptions from corporate income taxes. In Lebanon and Libya, SOEs are not subject to income tax law; while oil-producing countries often allow tax privileges for SOEs in the oil sector (World Bank 2019). Such advantages enable many SOEs to provide lower-priced products, making it difficult for private companies to compete, even if the latter are more efficient.

SOEs in the MENA region also benefit from easier access to credit. On average, SOEs have been found to face lower debt-financing costs than their private sector counterparts (IMF 2020). Moreover, MENA firms with partial state ownership appear to have more ample access to credit, reporting a higher share of bank financing than private sector firms (Figure 3.4). Government guarantees to SOEs can lower borrowing costs relative to similar private sector firms by reducing credit risks. In the MENA region, this practice is widespread, with the stock of public credit guarantees ranging between 2 to 55 percent of GDP (IMF 2021). SOEs also benefit from implicit guarantees, given government propensity to bail out failing public enterprises. Moreover, state-owned banks (SOBs) serve as a reliable source of financing for SOEs, due to strategic rather than commercial considerations (OECD 2012). The use of SOBs to finance SOEs at nonmarket terms has at times led to high levels of nonperforming loans (as previously seen in Algeria and Egypt), which, in turn, further restrict the ability of these banks to lend to the private sector (OECD 2013). IMF (2019) illustrates risks from the SOE–SOB nexus, whereby SOB lending to SOEs without rigorous oversight can have fiscal and financial stability implications. Cheaper and more ample credit for SOEs due to the aforementioned advantages implies a lower marginal product of capital vis-à-vis private firms, which points to capital misallocation (Hsieh and Klenow 2009, and Chapter 2 in this book).

The large public sector employment in the MENA region distorts labor markets and hampers the private sector’s job creation potential. Previous research suggests the public-private wage gap is quite high in the MENA region; for example, public wages in Gulf Cooperation Council (GCC) countries are, on average, two to three times higher than private sector wages, even prior to accounting for substantial nonwage benefits such as pensions and job security (Purfield and others 2018; Tamirisa and Duenwald 2018). A public sector wage premium not justified by differences in skill levels or job characteristics distorts labor allocation by making it difficult for productive private firms to attract productive workers. Moreover, more generous wages and nonwage benefits in public employment can lead job seekers to wait for a public sector job rather than accept a private sector one. Referred to as “queuing,” this phenomenon partly explains high and often long-term unemployment among young and highly educated workers in the region (Purfield and others 2018). Large wage gaps also lead to skill mismatches, with the education system in the MENA region primarily targeted toward preparation for government employment rather than private sector jobs (World Bank 2018; Purfield and others 2018). These factors likely contribute to the smaller share of private firms’ employment creation in the MENA region compared to other regions.

The dominance of the state in economic activities may distort market neutrality, alter the perception of risk-return tradeoffs, and ultimately stifle competition and private sector development. Previous studies find that private sector firms
The MENA region sees significantly lower patent application rates than other EMs, albeit with some notable exceptions in Iran and GCC countries (see Box 3.1). Finally, fiscal support to SOEs and high public wages divert resources away from public investments that would enhance private sector productivity and stimulate a more inclusive and dynamic growth.

THE IMPACT OF SOES ON PRIVATE SECTOR FIRMS IN THE MENA REGION: AN EMPIRICAL ANALYSIS

This section uses firm-level data to explore how SOEs differ from private sector firms, and how the presence of SOEs affects market dynamics. We use firm-level balance sheet data from Bureau van Dijk’s Orbis database, one of the few harmonized, cross-country, firm-level datasets that include both patent applications—a proxy for innovation rates (Figure 3.5).
Fostering Private-Sector-Led Growth in the MENA Region: A New Role for the State

SOEs and privately owned firms (both listed and non-listed). The dataset used covers eight MENA countries (Morocco, Algeria, Egypt, Saudi Arabia, Oman, Iran, Kuwait, and Jordan) and 66 countries in other world regions, over the period 2006–18. SOEs are identified based on the reported firm owner (firms owned by “Public authority, state, government”). Only firm-year observations where data on assets, liabilities, revenues, and costs are available are included. (More details about the data are in Annex 3.2.) Data availability and representativeness vary across countries. SOE presence, measured through their shares of sectors’ assets, varies across time and across sectors both within and outside the MENA region. SOE presence in the MENA region is, on average, larger than in other world regions, especially in the mining, information and communication, and transport sectors (Figure 3.6). Within the MENA region, the dataset is strongly representative of the universe of both private firms and SOEs for Morocco and Algeria. After substantive data cleaning, we used this data to find a few stylized facts on the productivity and profitability of SOEs in the MENA region, and to run a series of panel regressions linking these characteristics to firm-specific factors (such as

Box 3.1. A New Generation of SOEs in the GCC

In recent years, Gulf Cooperation Council (GCC) countries have adopted an economic strategy that includes using state-owned enterprises (SOEs) to expand to new high-tech sectors, including aviation, semiconductors, and green energy. Sometimes referred to as “third generation SOEs,” these SOEs are often funded through Sovereign Wealth Funds (OECD 2013). Examples include Mubadala Holding Company in the United Arab Emirates, which owns a variety of assets and invests in aerospace, renewable energy, and semiconductors; Saudi Aramco, which provides direct support to small and medium enterprises and conducts research in a variety of areas; and state-owned entities created to invest in solar energy and real estate in Qatar (OECD 2013).

In these cases, state involvement is intended to initiate economic development in high-productivity and high-externality sectors, thus continuing historic growth strategies of the state as a first mover to overcome market failures, resulting in hurdles for private sector expansion. These hurdles include limited incentives for diversification given the economic dominance of the oil sector, the high costs of credit for private start-ups, and the hesitancy of domestic lenders to provide credit in new sectors given inexperience in pricing risks (OECD 2013; Vorisek and others 2021).

There is some evidence that diversification efforts have begun to bear fruit. Patent grants in the GCC increased tenfold between 2009 and 2019, much more rapidly than in any other world region. Patent applications were largely driven by SOEs and public investment; for example, in 2020, Saudi Aramco alone accounted for nearly half of international patent applications from Saudi Arabia. Trends in patent publications show expansion of GCC economies into varied fields: IT, electronics, and telecommunication account for the majority of patent publications in Qatar today, while biology and pharmaceuticals and civil engineering account for a significant share in the United Arab Emirates and Saudi Arabia, respectively. These developments have also started to affect labor composition: Saudi Arabia has seen the largest increase among Group of Twenty countries in university and secondary school graduates in the job market in the last five years (World Economic Forum 2020). However, it remains to be seen whether these patents are successfully commercialized, and whether such diversification efforts will also create space for and draw in private sector entrepreneurship.
Our analysis reveals that SOEs in the MENA region differ from private sector firms in several key dimensions:

- Compared to private firms, SOEs in the MENA region (but also in other world regions) have larger sales and assets upon establishment; however, they see lower growth rates over time (Figure 3.7).
- SOEs in the MENA region are less profitable than private sector firms (they have a lower average Returns on Equity even when controlling for firm- and sector-specific characteristics; see Annex Table 3.3.1). However, the profitability gap is smaller in the MENA region compared to the rest of the world (7.5 percentage points compared to 15.6 percentage points).
- The smaller profitability gap for MENA SOEs may reflect their privileged access to factors of production. Indeed, contrary to the rest of the world, SOEs in the MENA region have lower imputed interest rates than private sector firms (by about 1–2 percentage points; see Annex Table 3.3.3)\(^5\). On the other hand, we could not find evidence that SOEs report paying lower imputed tax rates compared to private sector firms.

\[^5\] Imputed interest rate is computed as the total interest expenditures divided by total liabilities excluding equity.
Fostering Private-Sector-Led Growth in the MENA Region: A New Role for the State

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Fostering Private-Sector-Led Growth in the MENA Region: A New Role for the State

...MENA SOEs are on average less productive than private sector firms, with lower returns on capital (Annex Table 3.3.2), a pattern that stands in contrast to the rest of the world.6

Moreover, we found that the presence of SOEs has a negative impact on competition and business dynamism. Output market concentration, measured by the Herfindahl-Hirschman Index (HHI), is higher in sectors with larger SOE presence. This effect is stronger in the MENA region: for each 1 percentage point increase in the SOE asset share in a sector, the HHI increases by 0.26 in the MENA region compared to only 0.1 in other regions (Annex Table 3.3.4). Moreover, business dynamism, measured through entry and exit rates, is lower in sectors with higher SOE asset share, even when controlling for concentration: 1 percentage point of additional SOE asset share in a sector is associated with a 0.2 percentage point decrease in entry rates and a 0.1 percentage point decrease in exit rates (Annex Table 3.3.6). Given the larger market presence of SOEs in the MENA region, the impact on competition is especially large.

Finally, a higher SOE presence is also associated with lower private investment and lower competition in input markets. We find that a larger SOE presence in a specific sector is associated with lower investment by private firms in the same sector in the MENA region by about $600 a year, controlling for firm-specific factors. The presence of SOEs also leads to increased concentration in input markets in the MENA region (but not in the rest of the world): for every percentage point higher SOE asset share in a country, the HHI for capital inputs in that country is 0.8 point higher, and the HHI for labor inputs is higher by 0.5. The positive relationship between SOE presence and concentration in input markets suggests that the large size of the SOE sector limits competition for capital and labor, which can lead to some of the distortions in resource allocation documented previously.

These empirical findings attest to the distortive effect of state involvement in the economy in the MENA region on competition in output and input markets and on business dynamism. While some of these distortions are also observed outside the MENA region, the larger market share of SOEs in the MENA region—associated with the region’s state-led growth model—translates to a more substantial effect on private sector exclusion.

HOW THE STATE CAN FOSTER PRIVATE-SECTOR-LED GROWTH

Our results point to a need for a broad reform of SOEs within a more general reassessment of the role of the state in MENA economies. Fostering a private-sector-led growth model does...
not mean that the state will not have an important role to play. Rather, it calls for a change in roles, from that of an active player in the economy to that of enabler of private sector development. This would first require the development of a state ownership policy to articulate (1) the rationale for the state’s involvement in the various economic sectors, (2) the objectives and activities of the SOEs, and (3) their governance structure. The state ownership policy could then underpin a strategy for privatizing SOEs where there is no clear rationale for state involvement. The ownership reform should be accompanied by a modernization of the legal, accounting, and operational frameworks of SOEs with a view to increase transparency and limit fiscal contingent liability risks. SOEs’ financial reports should be published on a regular basis, and their financial performances benchmarked against the same standards as the private sector. Currently, no MENA country requires the separation of commercial and noncommercial activities of SOEs (World Bank 2019); however, best practice would call for operations that fulfill social policy mandates to be clearly separated from SOEs’ commercial activities, with the costs of the former explicitly recognized on the government’s budget for transparency.

Fostering private sector development would require reforming competition policies. Ensuring a level playing field or “competitive neutrality” for all market players is key for private sector growth. As a first step, as recommended in IMF (2021), regular or exceptional government support to SOEs should be governed by clearly circumscribed conditions in order to limit distortional subsidies. Doing so will not only incentivize better performances by SOEs but also encourage greater participation by the private sector. It is also important to subject SOEs to the same laws, regulations, and tax provisions that apply to their private sector counterparts, (including on public procurement). Reforms to support competitive and regulatory neutrality should include establishing regulatory agencies that have the necessary autonomy, resources, and authority to enforce law and regulations (Aghion, Cherif, and Hasanov 2021). While SOEs will naturally have some advantages over private firms, such as more favorable debt financing costs, ensuring that they operate within the same regulatory environment as their private sector counterparts will greatly reduce distortions and allow for more inclusive growth based on stronger contributions of private entrepreneurs to the economy.

Improving the business environment is also an important step for private sector growth. In addition to the uneven playing field, the MENA region’s private sector contends with several other hurdles to doing business. Removing such hurdles would require:

- **Improving infrastructure.** Despite progress made in the last few decades, many countries in the region still face poor transport infrastructure (roads, ports, and airports) and uneven access to broadband connectivity. Investments in infrastructure have both immediate and long-term payoffs in supporting a more inclusive growth; the World Bank estimates that $1 billion of infrastructure investment in the MENA region could increase growth by 0.5 percentage point and create over 130,000 jobs in the short term, and some additional 400,000 jobs over the long term due to crowding-in effects on business activities.⁷ The transition toward greener and more sustainable development models could offer many economies in the MENA region an opportunity to revamp their infrastructure investment agenda (see Chapter 8 of this book).

- **Improving SMEs’ access to finance.** Higher collateral requirements, limited banking competition, and relatively shallow capital markets in the MENA region make access to credit more challenging than in other regions (OECD 2019). These challenges are particularly detrimental for SMEs: while it is estimated that SMEs in the MENA region represent about 96 percent of registered companies and about half of the employment, they account for only 7 percent of total bank lending—the lowest proportion in the world (EBRD 2016; Purfield and others 2018). Chapters 2 and 6 of this book and IMF (2019) show that SMEs’ financial inclusion can lead to economic growth, job creation, and greater effectiveness of fiscal and monetary policy. IMF (2019) estimates that closing the region’s financial inclusion gap with EMs’ average could boost annual growth rates by up to 1 percentage point over the medium term, potentially adding about 16 million new jobs by 2025. Improving access to finance for SMEs would require improving the legal and regulatory frameworks, including on collateral registration and insolvency and creditors’ rights, and fostering the development of digital banking and e-payment systems.

- **Reducing red tape and scope for corruption.** As discussed in Chapter 2, cumbersome regulation and the low quality of governance are serious barriers to entry and could well result in resource reallocation from low to high productivity firms. Firms in the region report tax policy and administration to be particularly cumbersome (World Bank Enterprise Survey database; EBRD 2016). Moreover, over half of private (and public sector) firms in the MENA region report corruption as a major constraint in the latest Enterprise Surveys, well above levels reported in other regions (Figure 3.8). Corruption also favors publicly owned firms: a third of private firms in the MENA region report being expected to give bribes to secure government contracts (compared to less than 10 percent of SOEs); and one in five private firms (vs. one in nine SOEs) are expected to give gifts to public officials for regular activities. Streamlining regulations and administrative procedures (for example,
customs, tax, business registration, permits), including via digitalization, would be a crucial step in reducing the scope for rent-seeking behaviors and the cost of doing business in the region.

CONCLUSIONS

Fostering private sector development in the MENA region will require the state to pivot toward facilitating rather than leading business activities in the region. The absence of a robust private sector that can generate vast employment opportunities and maintain social cohesion has been used as a justification for the large state’s role in economic activities in the MENA region. But this development model has perpetuated a cycle where the private sector and its employment capacity in the economy are held back due to the state’s large footprint. Gradually rolling back the state’s role and focusing resources on facilitating private sector growth can lead to greater efficiency, higher productivity, and hence the economy’s ability to sustain higher growth. Doing so will also free up fiscal space for pursuing policies that would promote inclusion and ultimately ensure social cohesion.
## Annex 3.1.
### Country Groups

<table>
<thead>
<tr>
<th>Continent</th>
<th>Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa (AFR)</td>
<td>South Sudan, Swaziland, Djibouti, Egypt, Angola, Benin, Botswana,</td>
</tr>
<tr>
<td></td>
<td>Central Africa and the Pacific (APD)</td>
</tr>
<tr>
<td></td>
<td>Chad, Comoros, Congo, Dem. Rep., Congo, Rep., Cote d’Ivoire,</td>
</tr>
<tr>
<td></td>
<td>Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, The, Ghana,</td>
</tr>
<tr>
<td></td>
<td>Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi,</td>
</tr>
<tr>
<td></td>
<td>Mali, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, São</td>
</tr>
<tr>
<td></td>
<td>Tomé and Principe, Senegal, Seychelles, Sierra Leone, South Africa</td>
</tr>
<tr>
<td>Central Asia and</td>
<td>Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyz Republic, Tajikistan,</td>
</tr>
<tr>
<td>the Caucasus (CCA)</td>
<td>Turkmenistan, Uzbekistan, China, India, Indonesia, Kiribati, Lao PDR,</td>
</tr>
<tr>
<td></td>
<td>Malaysia, Micronesia, Mongolia, Myanmar, Nauru, Nepal, Palau, Papua</td>
</tr>
<tr>
<td></td>
<td>New Guinea, Philippines, Samoa, Solomon Islands, Sri Lanka, Thailand,</td>
</tr>
<tr>
<td></td>
<td>Timor-Leste, Tonga, Tuvalu, Vanuatu, Vietnam,</td>
</tr>
<tr>
<td>Central Asia and</td>
<td>Asia and the Pacific (APD)</td>
</tr>
<tr>
<td>Europe (EUR)</td>
<td>Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Kosovo,</td>
</tr>
<tr>
<td></td>
<td>Macedonia, FYR, Moldova, Montenegro, Poland, Romania, Russian Federation</td>
</tr>
<tr>
<td></td>
<td>Serbia, Turkey, Ukraine, Yemen, Western Hemisphere (WHD), Antigua &amp;</td>
</tr>
<tr>
<td></td>
<td>Barbuda, Argentina, Bahamas, The Barbados, Belize, Bolivia, Brazil,</td>
</tr>
<tr>
<td></td>
<td>Chile, Colombia, Costa Rica, Dominica, Dominican Republic, Ecuador,</td>
</tr>
<tr>
<td></td>
<td>El Salvador, Grenada, Guyana, Haiti, Honduras, Jamaica, Kuwait, Lebanon,</td>
</tr>
<tr>
<td></td>
<td>Libya, Mauritania, Morocco, Oman, Qatar, Saudi Arabia, Somalia, Sudan,</td>
</tr>
<tr>
<td></td>
<td>Syria, Tunisia, United Arab Emirates, Yemen, Afghanistan, Algeria,</td>
</tr>
<tr>
<td></td>
<td>Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates,</td>
</tr>
<tr>
<td></td>
<td>Middle East and North Africa (MENA), Afghanistan, Algeria, Bahrain</td>
</tr>
</tbody>
</table>
Annex 3.2.
Data Description

The empirical analysis in this paper uses data from Bureau van Dijk’s Orbis database. The sample covers eight Middle East and North African region (MENA) countries (Morocco, Algeria, Egypt, Saudi Arabia, Oman, Iran, Kuwait, and Jordan) and 66 countries in other world regions, over the period 2006–18. State-owned enterprises (SOEs) are identified based on the reported firm owner (that is, firms with majority ownership by “public authority, state, government”).

The Orbis database is one of the few harmonized, cross-country, firm-level datasets of key financial variables that include both SOEs and privately owned firms (both listed and non-listed), allowing for rich quantitative analyses of SOEs. As with most datasets, however, there are some limitations. These include uneven firm coverage across countries, unbalanced data panel, and the inability to identify indirect SOEs (for example, firms owned by state-owned banks). Extensive data cleaning and robustness checks of the empirical results were done to ensure that data limitations do not result in biased findings.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROE</td>
<td>Return on equity, computed as firm’s profit divided by equity</td>
</tr>
<tr>
<td>ROK</td>
<td>Return on capital, computed as firm’s revenue divided by its fixed assets</td>
</tr>
<tr>
<td>ROL</td>
<td>Return on labor, computed as firm’s revenue divided by its employee cost</td>
</tr>
<tr>
<td>R</td>
<td>Interest rate faced by the firm, computed as the firm’s interest expenditure divided by total liabilities excluding equity</td>
</tr>
<tr>
<td>HHI</td>
<td>Herfindahl-Hirshman Index, $\sum (firm i’s revenue/sector’s revenue)^2$, a measure of market concentration (a value of 1 reflects monopolistic market)</td>
</tr>
<tr>
<td>HHI$^K$</td>
<td>Herfindahl-Hirshman Index, $\sum (firm i’s fixed assets/sector’s total assets)^2$, a measure of market concentration for the capital input market</td>
</tr>
<tr>
<td>HHI$L$</td>
<td>Herfindahl-Hirshman Index, $\sum (firm i’s employee cost/sector’s total employee cost)^2$, a measure of market concentration for the labor input market</td>
</tr>
<tr>
<td>Entry/Entry rate</td>
<td>Number of new private firms (based on the year of establishment) divided by number of firms in the sample in that period</td>
</tr>
<tr>
<td>Exit</td>
<td>Number of private firms that exit sample (based on last observation) divided by number of firms in the sample in that period</td>
</tr>
<tr>
<td>Investment</td>
<td>Change in the firm’s fixed assets from the previous year</td>
</tr>
<tr>
<td>SOE</td>
<td>Dummy variable for firms that are more than 50 percent owned by public authority, state, or government</td>
</tr>
<tr>
<td>SOE share</td>
<td>Share of SOE assets in the sector’s total assets</td>
</tr>
<tr>
<td>MENA</td>
<td>Dummy variable for firms located in the MENA region</td>
</tr>
<tr>
<td>Age</td>
<td>Age of the firm</td>
</tr>
<tr>
<td>Size</td>
<td>(Log of) Assets</td>
</tr>
<tr>
<td>Leverage</td>
<td>Firm’s total liabilities divided by total assets</td>
</tr>
<tr>
<td>Current asset ratio</td>
<td>Firm’s stock of current assets divided by current liabilities</td>
</tr>
<tr>
<td>Maturity</td>
<td>Firm’s noncurrent liabilities divided by total liabilities</td>
</tr>
<tr>
<td>Equity ratio</td>
<td>Firm’s equity divided by total liabilities</td>
</tr>
<tr>
<td>Inventory turnover</td>
<td>Inventory turnover, a measure of efficiency of inventory usage, computed as the firm’s inventory divided by its revenue</td>
</tr>
</tbody>
</table>

Source: Bureau van Dijk’s Orbis database.
Note: MENA = Middle East and North Africa; SOE = state-owned enterprises.
## Annex 3.3. Regression Results

### ANNEX TABLE 3.3.1.

<table>
<thead>
<tr>
<th>Variables</th>
<th>(1) ROE&lt;sub&gt;cal&lt;/sub&gt;</th>
<th>(2) ROE&lt;sub&gt;cal&lt;/sub&gt;</th>
<th>(3) ROE&lt;sub&gt;cal&lt;/sub&gt;</th>
<th>(4) ROE&lt;sub&gt;cal&lt;/sub&gt;</th>
<th>(5) ROE&lt;sub&gt;cal&lt;/sub&gt;</th>
<th>(6) ROE&lt;sub&gt;cal&lt;/sub&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOE</td>
<td>−8.05***</td>
<td>−33.3</td>
<td>−15.6***</td>
<td>−50.3***</td>
<td>−50.3***</td>
<td>−50.3***</td>
</tr>
<tr>
<td></td>
<td>(1.81)</td>
<td>(25.2)</td>
<td>(0.11)</td>
<td>(0.64)</td>
<td>(0.64)</td>
<td>(0.64)</td>
</tr>
<tr>
<td>MENA</td>
<td>12.3</td>
<td>0.94</td>
<td>0.26</td>
<td>34.8</td>
<td>51.7</td>
<td>51.7</td>
</tr>
<tr>
<td>MENA × SOE</td>
<td>8.11***</td>
<td>1.54</td>
<td>1.62</td>
<td>(1.81)</td>
<td>(1.83)</td>
<td>(1.83)</td>
</tr>
<tr>
<td>Age</td>
<td>−0.19***</td>
<td>−0.19***</td>
<td>−0.40***</td>
<td>−0.40***</td>
<td>−0.40***</td>
<td>−0.40***</td>
</tr>
<tr>
<td></td>
<td>(0.030)</td>
<td>(0.030)</td>
<td>(0.0014)</td>
<td>(0.0014)</td>
<td>(0.0014)</td>
<td>(0.0014)</td>
</tr>
<tr>
<td>Age × SOE</td>
<td>0.25***</td>
<td>0.25***</td>
<td>0.38***</td>
<td>0.38***</td>
<td>0.38***</td>
<td>0.38***</td>
</tr>
<tr>
<td></td>
<td>(0.079)</td>
<td>(0.079)</td>
<td>(0.0029)</td>
<td>(0.0029)</td>
<td>(0.0029)</td>
<td>(0.0029)</td>
</tr>
<tr>
<td>Size</td>
<td>−0.64***</td>
<td>−0.64***</td>
<td>−1.16***</td>
<td>−1.16***</td>
<td>−1.16***</td>
<td>−1.16***</td>
</tr>
<tr>
<td></td>
<td>(0.21)</td>
<td>(0.21)</td>
<td>(0.0092)</td>
<td>(0.0092)</td>
<td>(0.0092)</td>
<td>(0.0092)</td>
</tr>
<tr>
<td>Size × SOE</td>
<td>1.28</td>
<td>1.27</td>
<td>2.12***</td>
<td>2.12***</td>
<td>2.12***</td>
<td>2.12***</td>
</tr>
<tr>
<td></td>
<td>(1.29)</td>
<td>(1.29)</td>
<td>(0.039)</td>
<td>(0.039)</td>
<td>(0.039)</td>
<td>(0.039)</td>
</tr>
<tr>
<td>Leverage</td>
<td>−0.00045***</td>
<td>−0.00045***</td>
<td>−0.00017</td>
<td>−0.00017</td>
<td>−0.00017</td>
<td>−0.00017</td>
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<tr>
<td></td>
<td>(0.000037)</td>
<td>(0.000037)</td>
<td>(0.00017)</td>
<td>(0.00017)</td>
<td>(0.00017)</td>
<td>(0.00017)</td>
</tr>
<tr>
<td>Current asset ratio</td>
<td>−0.0027***</td>
<td>−0.0027***</td>
<td>−6.9e-09</td>
<td>−6.9e-09</td>
<td>−6.9e-09</td>
<td>−6.9e-09</td>
</tr>
<tr>
<td></td>
<td>(0.00090)</td>
<td>(0.00090)</td>
<td>(1.0e-08)</td>
<td>(1.0e-08)</td>
<td>(1.0e-08)</td>
<td>(1.0e-08)</td>
</tr>
<tr>
<td>Equity ratio</td>
<td>−0.00013***</td>
<td>−0.00013***</td>
<td>−0.00046***</td>
<td>−0.00046***</td>
<td>−0.00046***</td>
<td>−0.00046***</td>
</tr>
<tr>
<td></td>
<td>(9.8e-06)</td>
<td>(1.0e-05)</td>
<td>(0.000063)</td>
<td>(0.000063)</td>
<td>(0.000063)</td>
<td>(0.000063)</td>
</tr>
<tr>
<td>Inventory turnover</td>
<td>−0.000000014***</td>
<td>−0.000000014***</td>
<td>−0.00000014**</td>
<td>−0.00000014**</td>
<td>−0.00000014**</td>
<td>−0.00000014**</td>
</tr>
<tr>
<td></td>
<td>(0.00000064)</td>
<td>(0.00000064)</td>
<td>(0.00000063)</td>
<td>(0.00000063)</td>
<td>(0.00000063)</td>
<td>(0.00000063)</td>
</tr>
<tr>
<td>HHI (Sector)</td>
<td>4.97</td>
<td>4.11</td>
<td>77.4***</td>
<td>2.27</td>
<td>2.27</td>
<td>2.27</td>
</tr>
<tr>
<td></td>
<td>(4.11)</td>
<td>(35.9)</td>
<td>(2.27)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entry rate (Sector)</td>
<td>−0.00022</td>
<td>3.91</td>
<td>77.4***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(35.9)</td>
<td>(35.9)</td>
<td>77.4***</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Investment (Sector)</td>
<td>0.0039</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Fixed effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country X Sector</td>
<td>54.7k(MN)</td>
<td>50.0k(MN)</td>
<td>50.0k(MN)</td>
<td>41.1m</td>
<td>39.3m</td>
<td>39.3m</td>
</tr>
<tr>
<td>Country X Year</td>
<td>0.040</td>
<td>0.035</td>
<td>0.035</td>
<td>0.037</td>
<td>0.041</td>
<td>0.041</td>
</tr>
<tr>
<td>Observations</td>
<td>54.7k(MN)</td>
<td>50.0k(MN)</td>
<td>50.0k(MN)</td>
<td>41.1m</td>
<td>39.3m</td>
<td>39.3m</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.040</td>
<td>0.035</td>
<td>0.035</td>
<td>0.037</td>
<td>0.041</td>
<td>0.041</td>
</tr>
</tbody>
</table>

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Source: Authors’ estimates using the Bureau van Dijk’s Orbis database.

Note: Variables are explained in Annex Table 3.2.1. HHI = Herfindahl-Hirshman Index; MENA = Middle East and North Africa; ROE = return on equity; SOE = state-owned enterprises.
### ANNEX TABLE 3.3.2.

**Firm Productivity**

<table>
<thead>
<tr>
<th>Variables</th>
<th>(1) ROK&lt;sub&gt;i,t&lt;/sub&gt;</th>
<th>(2) ROK&lt;sub&gt;i,t&lt;/sub&gt;</th>
<th>(3) ROL&lt;sub&gt;i,t&lt;/sub&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOE</td>
<td>-2286.6</td>
<td>-587.3***</td>
<td>353.8***</td>
</tr>
<tr>
<td></td>
<td>(1522.3)</td>
<td>(207.9)</td>
<td>(147.7)</td>
</tr>
<tr>
<td>MENA</td>
<td>28270.1</td>
<td>-287.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(261.0)</td>
<td></td>
</tr>
<tr>
<td>MENA × SOE</td>
<td>2179.5***</td>
<td></td>
<td>46.2</td>
</tr>
<tr>
<td></td>
<td>(832.8)</td>
<td></td>
<td>(82.4)</td>
</tr>
<tr>
<td>Age</td>
<td>-10.1***</td>
<td>-0.99</td>
<td>-3.24***</td>
</tr>
<tr>
<td></td>
<td>(1.07)</td>
<td>(1.82)</td>
<td>(0.50)</td>
</tr>
<tr>
<td>Age × SOE</td>
<td>-12.2</td>
<td>5.93*</td>
<td>-0.019</td>
</tr>
<tr>
<td></td>
<td>(1.07)</td>
<td>(1.82)</td>
<td>(0.85)</td>
</tr>
<tr>
<td>Size</td>
<td>55.8***</td>
<td>8.17</td>
<td>47.8***</td>
</tr>
<tr>
<td></td>
<td>(19.3)</td>
<td>(14.0)</td>
<td>(6.78)</td>
</tr>
<tr>
<td>Size × SOE</td>
<td>249.0*</td>
<td>12.1</td>
<td>-28.9***</td>
</tr>
<tr>
<td></td>
<td>(139.7)</td>
<td>(12.1)</td>
<td>(8.85)</td>
</tr>
<tr>
<td>Leverage</td>
<td>0.0044</td>
<td>0.056</td>
<td>0.00028*</td>
</tr>
<tr>
<td></td>
<td>(0.0043)</td>
<td>(0.061)</td>
<td>(0.00061)</td>
</tr>
<tr>
<td>Current asset ratio</td>
<td>0.000034</td>
<td>-0.015</td>
<td>-0.0000039**</td>
</tr>
<tr>
<td></td>
<td>(0.000036)</td>
<td>(0.013)</td>
<td>(0.000018)</td>
</tr>
<tr>
<td>Inventory turnover</td>
<td>-0.000027***</td>
<td>-0.000016**</td>
<td>-0.000052***</td>
</tr>
<tr>
<td></td>
<td>(0.0000085)</td>
<td>(0.000066)</td>
<td>(0.000091)</td>
</tr>
<tr>
<td>Equity ratio</td>
<td>-0.060***</td>
<td>0.00026</td>
<td>-0.00015</td>
</tr>
<tr>
<td></td>
<td>(0.0021)</td>
<td>(0.00020)</td>
<td>(0.00016)</td>
</tr>
<tr>
<td>HHI (Sector)</td>
<td>4912.1</td>
<td>-183.9</td>
<td>-82.1</td>
</tr>
<tr>
<td></td>
<td>(4915.9)</td>
<td>(134.9)</td>
<td>(138.4)</td>
</tr>
<tr>
<td>Entry rate (Sector)</td>
<td>-819.0</td>
<td>-1068.1</td>
<td>-126.3</td>
</tr>
<tr>
<td></td>
<td>(632.0)</td>
<td>(2339.5)</td>
<td>(321.8)</td>
</tr>
<tr>
<td>Investment (Sector)</td>
<td>0.18</td>
<td>0.079</td>
<td>-0.17</td>
</tr>
<tr>
<td></td>
<td>(0.38)</td>
<td>(0.099)</td>
<td>(0.19)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fixed effects</th>
<th>Country X Sector</th>
<th>Country X Sector</th>
<th>Country X Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Country X Sector Year</td>
<td>Country X Sector Year</td>
<td>Country X Sector Year</td>
</tr>
<tr>
<td>Observations</td>
<td>38.7mn</td>
<td>52.6k</td>
<td>26.5mn</td>
</tr>
<tr>
<td>Sample region</td>
<td>All</td>
<td>MENA</td>
<td>All</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.00043</td>
<td>0.00041</td>
<td>0.000093</td>
</tr>
</tbody>
</table>

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Source: Authors’ estimates using the Bureau van Dijk’s Orbis database.

Note: Variables are explained in Annex Table 3.2.1. HHI = Herfindahl-Hirshman Index; MENA = Middle East and North Africa; ROK = return on capital; ROL = return on labor; SOE = state-owned enterprises.
### ANNEX TABLE 3.3.3.

**Interest Rates**

<table>
<thead>
<tr>
<th>Variables</th>
<th>(1) ( R_{i,t} )</th>
<th>(2) ( R_{i,t} )</th>
<th>(3) ( R_{i,t} )</th>
<th>(4) ( R_{i,t} )</th>
<th>(5) ( R_{i,t} )</th>
<th>(6) ( R_{i,t} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOE</td>
<td>-0.018***</td>
<td>-0.012***</td>
<td>-0.015***</td>
<td>0.48*</td>
<td>-0.31***</td>
<td>-0.36</td>
</tr>
<tr>
<td></td>
<td>(0.0035)</td>
<td>(0.0039)</td>
<td>(0.0038)</td>
<td>(0.29)</td>
<td>(0.26)</td>
<td>(0.26)</td>
</tr>
<tr>
<td>MENA</td>
<td>-0.80</td>
<td>-1.06</td>
<td>-0.99</td>
<td>(1.03)</td>
<td>(0.71)</td>
<td>(0.66)</td>
</tr>
<tr>
<td>MENA × SOE</td>
<td>-0.74</td>
<td>0.016</td>
<td>-0.14</td>
<td>(1.34)</td>
<td>(0.39)</td>
<td>(0.54)</td>
</tr>
<tr>
<td>Size</td>
<td>-0.0062**</td>
<td>-0.0040**</td>
<td>-0.042</td>
<td>-0.046</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0025)</td>
<td>(0.0017)</td>
<td>(0.072)</td>
<td>(0.067)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.00031*</td>
<td>0.00034*</td>
<td>0.016</td>
<td>0.016</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.00018)</td>
<td>(0.00018)</td>
<td>(0.014)</td>
<td>(0.014)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROE</td>
<td>-0.00013***</td>
<td>0.00016***</td>
<td>0.00093</td>
<td>0.00079</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.000030)</td>
<td>(0.000039)</td>
<td>(0.00082)</td>
<td>(0.00076)</td>
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<td></td>
</tr>
<tr>
<td>Leverage</td>
<td>0.0020</td>
<td>0.0020</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.000020)</td>
<td>(0.000020)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current asset ratio</td>
<td>0.0015</td>
<td>0.0015</td>
<td>0.00155</td>
<td>0.00000020</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>(0.0010)</td>
<td>(0.0010)</td>
<td>(0.000017)</td>
<td>(0.000017)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maturity</td>
<td>-0.0018</td>
<td>9.8e-07</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0012)</td>
<td>(8.3e-07)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity ratio</td>
<td>0.031</td>
<td>0.031</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.019)</td>
<td>(0.019)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed effects</td>
<td>Ctry. X Sector</td>
<td>Ctry. X Sector</td>
<td>Ctry. X Sector</td>
<td>Ctry. X Sector</td>
<td>Ctry. X Sector</td>
<td>Ctry. X Sector</td>
</tr>
<tr>
<td></td>
<td>Ctry. X Year</td>
<td>Ctry. X Year</td>
<td>Ctry. X Year</td>
<td>Ctry. X Year</td>
<td>Ctry. X Year</td>
<td>Ctry. X Year</td>
</tr>
<tr>
<td>Observations</td>
<td>54.7k</td>
<td>50.0k</td>
<td>50.0k</td>
<td>41.1mn</td>
<td>39.3mn</td>
<td>39.3mn</td>
</tr>
<tr>
<td>Sample region</td>
<td>MENA</td>
<td>MENA</td>
<td>MENA</td>
<td>All</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.040</td>
<td>0.035</td>
<td>0.035</td>
<td>0.037</td>
<td>0.041</td>
<td>0.041</td>
</tr>
</tbody>
</table>

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Source: Authors’ estimates using the Bureau van Dijk’s Orbis database.

Note: Variables are explained in Annex Table 3.2.1. Ctry = country; MENA = Middle East and North Africa; R = interest rate faced by the firm; ROE = return on equity; SOE = state-owned enterprises.
### ANNEX TABLE 3.3.4.
The Impact of SOE Presence on Output Market Concentration

<table>
<thead>
<tr>
<th>Variables</th>
<th>(1) HHI_{ct}</th>
<th>(2) HHI_{ct}</th>
<th>(3) HHI_{ct}</th>
<th>(4) HHI_{ct}</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOE share_{ct}</td>
<td>0.11***</td>
<td>0.095***</td>
<td>0.095***</td>
<td>0.096***</td>
</tr>
<tr>
<td></td>
<td>(0.012)</td>
<td>(0.012)</td>
<td>(0.012)</td>
<td>(0.012)</td>
</tr>
<tr>
<td>MENA × SOE share_{ct}</td>
<td>0.16***</td>
<td>0.16***</td>
<td>0.16***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.052)</td>
<td>(0.052)</td>
<td>(0.053)</td>
<td></td>
</tr>
<tr>
<td>Entry</td>
<td>0.10</td>
<td>0.088</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.083)</td>
<td>(0.084)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment_{t-1}</td>
<td>0.000016</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.000011)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fixed effects
- Country
- Sector
- Year
Observations 8,504
Sample region All
R-squared 0.408

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Source: Authors’ estimates using the Bureau van Dijk’s Orbis database.
Note: Variables are explained in Annex Table 3.2.1. HHI = Herfindahl-Hirshman Index; MENA = Middle East and North Africa; R = interest rate faced by the firm; SOE = state-owned enterprises.

### ANNEX TABLE 3.3.5.
The Impact of SOE Presence on Input Market Concentration

<table>
<thead>
<tr>
<th>Variables</th>
<th>(1) HHI_{ct}</th>
<th>(2) HHI_{ct}</th>
<th>(3) HHI_{ct}</th>
<th>(4) HHI_{ct}</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOE share_{ct}</td>
<td>-0.038</td>
<td>0.74***</td>
<td>-0.35**</td>
<td>0.51***</td>
</tr>
<tr>
<td></td>
<td>(0.087)</td>
<td>(0.11)</td>
<td>(0.17)</td>
<td>(0.19)</td>
</tr>
<tr>
<td>MENA × SOE share_{ct}</td>
<td>0.80***</td>
<td>0.89***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.14)</td>
<td>(0.27)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed effects</td>
<td>Country</td>
<td>Country</td>
<td>Country</td>
<td>Country</td>
</tr>
<tr>
<td></td>
<td>Sector</td>
<td>Sector</td>
<td>Sector</td>
<td>Sector</td>
</tr>
<tr>
<td></td>
<td>Year</td>
<td>Year</td>
<td>Year</td>
<td>Year</td>
</tr>
<tr>
<td>Observations</td>
<td>917</td>
<td>78</td>
<td>917</td>
<td>78</td>
</tr>
<tr>
<td>Sample region</td>
<td>All</td>
<td>MENA</td>
<td>All</td>
<td>MENA</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.593</td>
<td>0.817</td>
<td>0.476</td>
<td>0.545</td>
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</table>

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Source: Authors’ estimates using the Bureau van Dijk’s Orbis database.
Note: Variables are explained in Annex Table 3.2.1. HHI = Herfindahl-Hirshman Index; MENA = Middle East and North Africa; R = interest rate faced by the firm; SOE = state-owned enterprises.
### ANNEX TABLE 3.3.6.
The Impact of SOE Presence on Business Dynamism

<table>
<thead>
<tr>
<th>Variables</th>
<th>(1) Entry,ct</th>
<th>(2) Entry,ct</th>
<th>(3) Entry,ct</th>
<th>(4) Exit,ct</th>
<th>(5) Exit,ct</th>
<th>(6) Exit,ct</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOE share,ct</td>
<td>-0.0021*</td>
<td>-0.0021*</td>
<td>-0.0020*</td>
<td>-0.012***</td>
<td>-0.011***</td>
<td>-0.011***</td>
</tr>
<tr>
<td>(0.0012)</td>
<td>(0.0012)</td>
<td>(0.0012)</td>
<td>(0.0044)</td>
<td>(0.0043)</td>
<td>(0.0043)</td>
<td></td>
</tr>
<tr>
<td>MENA × SOE share,ct</td>
<td>0.00036</td>
<td>0.00053</td>
<td>-0.015</td>
<td>-0.015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(0.0047)</td>
<td>(0.0047)</td>
<td>(0.030)</td>
<td>(0.030)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HHI,ct</td>
<td>0.0017</td>
<td>0.0017</td>
<td>0.025**</td>
<td>0.025**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(0.0016)</td>
<td>(0.0016)</td>
<td>(0.010)</td>
<td>(0.011)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment,ct</td>
<td>2.2e-06***</td>
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<td></td>
<td></td>
<td></td>
<td>-7.9e-06***</td>
</tr>
<tr>
<td>(5.1e-07)</td>
<td></td>
<td>(2.1e-06)</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Source: Authors’ estimates using the Bureau van Dijk’s Orbis database.

Note: Variables are explained in Annex Table 3.2.1. HHI = Herfindahl-Hirshman Index; MENA = Middle East and North Africa; R = interest rate faced by the firm; SOE = state-owned enterprises.

### ANNEX TABLE 3.3.7.
The Impact of SOE Presence on Private Firm Investment

<table>
<thead>
<tr>
<th>Variables</th>
<th>(1) Investment,ct</th>
<th>(2) Investment,ct</th>
<th>(3) Investment,ct</th>
<th>(4) Investment,ct</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOE share,ct</td>
<td>-385.1</td>
<td>-594.6*</td>
<td>19210.3</td>
<td>3322.3</td>
</tr>
<tr>
<td>(547.58)</td>
<td>(343.93)</td>
<td>(18734.84)</td>
<td>(11016.82)</td>
<td></td>
</tr>
<tr>
<td>MENA × SOE share,ct</td>
<td>-19736.0</td>
<td>-16115.4</td>
<td>8851.4</td>
<td>270685.6</td>
</tr>
<tr>
<td>(18624.46)</td>
<td>(13904.51)</td>
<td>(9274.4)</td>
<td>(193959.99)</td>
<td></td>
</tr>
<tr>
<td>MENA</td>
<td>8851.4</td>
<td>270685.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>156.0***</td>
<td>155.8***</td>
<td></td>
<td>1343.3***</td>
</tr>
<tr>
<td>(45.70)</td>
<td>(45.61)</td>
<td></td>
<td>(245.63)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-6.85*</td>
<td>-6.84*</td>
<td>-109.5***</td>
<td>(23.12)</td>
</tr>
<tr>
<td>(4.07)</td>
<td>(4.07)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leverage</td>
<td>0.018**</td>
<td>0.021**</td>
<td></td>
<td>0.053*</td>
</tr>
<tr>
<td>(0.01)</td>
<td>(0.01)</td>
<td></td>
<td>(0.03)</td>
<td></td>
</tr>
<tr>
<td>Current asset ratio</td>
<td>-0.019</td>
<td>-0.013</td>
<td></td>
<td>-0.000040*</td>
</tr>
<tr>
<td>(0.02)</td>
<td>(0.02)</td>
<td></td>
<td>(0.00)</td>
<td></td>
</tr>
<tr>
<td>Equity ratio</td>
<td>0.0011*</td>
<td>0.0017*</td>
<td></td>
<td>-0.00071*</td>
</tr>
<tr>
<td>(0.00)</td>
<td>(0.00)</td>
<td></td>
<td>(0.00)</td>
<td></td>
</tr>
<tr>
<td>Inventory turnover</td>
<td>-0.00029***</td>
<td>-0.00024***</td>
<td></td>
<td>0.00029</td>
</tr>
<tr>
<td>(0.00)</td>
<td>(0.00)</td>
<td></td>
<td>(0.00)</td>
<td></td>
</tr>
<tr>
<td>HHI (Sector)</td>
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<td>41145.1</td>
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<tr>
<td>(1166.36)</td>
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<td>(27849.4)</td>
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<td></td>
</tr>
<tr>
<td>Entry (Sector)</td>
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<td>12138.2</td>
<td></td>
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<tr>
<td>(10657.45)</td>
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<td>(9263.7)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Source: Authors’ estimates using the Bureau van Dijk’s Orbis database.

Note: Variables are explained in Annex Table 3.2.1. HHI = Herfindahl-Hirshman Index; MENA = Middle East and North Africa; R = interest rate faced by the firm; SOE = state-owned enterprises.


CHAPTER 4

The Changing Nature of Work: Improving the Functioning of Labor Markets

SIDRA REHMAN • AGUSTIN VELASQUEZ

INTRODUCTION

While annual GDP growth has accelerated in the Middle East and North Africa (MENA) region by about 5 percentage points since 2000, job creation has been limited and unemployment remains high (see Chapter 1). In the MENA region, the elasticity of employment to growth is estimated to be lower than in high-income countries and below levels that would be required to employ the region’s growing young population (IMF 2021; Crivelli, Furceri, and Toujas-Bernate 2012).

A rich and growing literature (Crivelli, Furceri, and Toujas-Bernate 2012; IMF 2018; IMF 2021; ElGanainy and others 2022) has attributed limited job creation in the MENA region to a host of structural and macroeconomic factors, including (1) skills mismatches; (2) widespread rigidities in labor markets, mainly from restrictive labor legislation for the hiring and dismissal of workers; and (3) a large government sector. A confluence of these factors has resulted in stagnant employment and unemployment rates in the region, with segmented labor markets, characterized by low female and youth labor force participation rates and a large informal sector (IMF 2018 and Chapter 1 of this book).

Emerging global trends could change the MENA region’s labor markets over the next few decades, in directions that are difficult to fully gauge. On the one hand, the working-age population in the MENA region will increase by 15 percent over the next two decades (equivalent to 30.8 million people), further raising pressures on economies in the region to generate employment. On the other hand, the MENA region will not be immune to the transformation drivers that started in advanced economies a few years ago and were accelerated by the pandemic. In particular:

• **Advances in automation technologies and artificial intelligence** (AI) have led to growing fears about job losses, especially for unskilled labor. While economic theory suggests that technological progress is likely to create both winners and losers, a disproportionate impact on low-skilled workers could, at least temporarily, increase labor market segmentation and income inequality.
• The pandemic is likely to have permanently changed the nature of work, with a widespread adoption of remote work arrangements and persistent reallocation of jobs across sectors (including from hospitality and high-contact sectors to IT and e-commerce). The nature of these changes will likely vary across countries depending on the distributions of jobs and occupations, the possibility of working from home, and the quality of internet access.

Automation, AI, and remote work are likely to present challenges to MENA economies but also provide opportunities, especially to some excluded groups, like youth and women. AI will increase the demand for high-skill workers to support automation, while remote work will reduce location and mobility impediments, and allow for more flexible work schemes for jobs that do not require physical proximity. While jobs affected by AI, automation, and remote work do not necessarily overlap one-to-one, one factor is clear: upskilling the labor force is key to adapting to this new labor market landscape and mitigating long-lasting job deficits in the MENA region.

Against this background, this chapter addresses a few key questions: How will these trends impact the nature of work and labor market outcomes in MENA countries? Will they lead to further polarization in regional labor markets, and

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1 Based on UN population prospects projections based on the medium-fertility variant for MENA countries.
further entrench inequality, or will they provide an opportunity for more inclusion? To shed some light on these questions, in this chapter we first review recent academic literature on the future of jobs globally and in the MENA region. Then, leveraging this literature, we build indices that measure the degree of exposure of MENA economies to both automation and remote work trends, and discuss the implications for different demographic groups and countries in the region. We conclude by discussing policy measures to help navigate the changing landscape so that the MENA region is poised to take advantage of these trends that will shape the future of work.

**AUTOMATION**

We first look at the potential impact of advances in AI and related forms of automation technologies on the MENA region’s labor markets.

According to many—though by no means all—economists, advances in AI and related technologies will allow machines to substitute for human labor across a much wider range of tasks than earlier waves of automation. Autor and Price (2003) and Autor (2013) suggest that automation tends to hurt workers by substituting humans in performing noncognitive and routine tasks. Technological progress has been skill-biased, disproportionately favoring high-skilled workers over low-skilled ones, leading to a polarization of the labor market and income gains at the global level (Berg, Buffie, and Zanna 2018; Jaumotte, Lall, and Papageorgiou 2013; Korinek, Schindler, and Stiglitz 2020). Sachs (2019) and Yusuf (2017) suggest profound implications of automation on development pathways and strategies as well as the prospect of premature deindustrialization, along with reductions in demand for unskilled labor. Nedelkoska and Quintini (2018) find that developing countries are more vulnerable to automation, based on differences in industrial structure and, more importantly, in the way work is organized in these countries (notably a greater dependence on unskilled labor).

The overall impact of automation trends on employment, however, is likely to be both complex and ambiguous—with creative and destructive forces that impact the demand for labor, and the distribution and reallocation of tasks across factors of production. Acemoglu and Restrepo (2019) identify two effects: (1) a displacement effect, where automation results in job losses, and (2) a reinstatement effect, which has a positive effect on job creation whereby new technologies create new employment opportunities. It remains to be seen if the nature of automation will be employment reducing or enhancing on balance.

In general, the impact of automation on jobs is likely to be greater in (1) manufacturing, a sector characterized by many occupations involving manual and routine tasks, and (2) administration and middle management, which tend to involve many cognitive, but routine, tasks. In contrast, employment in sectors with many occupations involving cognitive and not-routine work, like education and health care sectors, is likely to be less affected by technological change. Moreover, there could be at least a few forms of manual employment that could be difficult to computerize, such as those in agriculture, and are thus less likely to be affected by automation.

Based on the skill composition of its labor force, employment in the MENA region could be relatively more susceptible to automation, given its large concentration of employment in low-skill occupations. The share of the workforce in high- and medium-skill occupations continues to be lower in the MENA region than in the rest of the world. This has been worsened by limited employment creation in these types of occupations (Figure 4.1).\(^2\) As of 2020, only 19 percent of the region’s workers were in high-skill occupations, compared to 21 percent in non-MENA economies, 44 percent were in medium-skill occupations (41 percent in non-MENA econo-

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\(^2\) Following the International Labour Organization’s definition, high-skill occupations include managers, professionals, technicians, and associate professionals. Medium-skill occupations include clerical support workers, service and sales workers, skilled agriculture, forestry and fishery workers, craft and related trades workers, plant and machine operators, and assemblers. Low-skill workers are those in elementary occupations such as selling goods in streets and public places, or from door to door; providing various street services; cleaning, washing, pressing; taking care of apartment houses, hotels, offices and other buildings; and washing windows.
on measures of the automatability of “occupations” that have been suggested in the literature by Frey and Osborne (2017) and used in recent research (Abdychev and others 2018).

Using data from the O*NET database, a comprehensive system developed by the US Department of Labor that provides information for over 1,100 occupations within the US economy, Frey and Osborne estimate indexes that measure the degree by which an occupation can be automated.

Combining these indexes by the share of occupations in sectors yields an index of vulnerability to automation by sector:

\[ AV_i = \sum_{o} s_{h_{o,i}} \cdot AV_o \]  

(4.1)

where \( AV_i \) is the automation vulnerability index of occupation \( o \) and \( s_{h_{o,i}} \) is the share of workers with occupation \( o \) employed in industry \( i \). By doing this, Frey and Osborne show that the sectors with the greatest vulnerability to automation in the United States are a few service sectors that may be affected by disruptive trends, including driverless cars and self-checkout counters (accommodation and food, retail trade, real estate, transportation), followed by manufactur-
warehousing, whereas females tend to be employed in less automatable sectors, such as agriculture and education.

REMOTE WORK

The pandemic has impacted labor markets in an unprecedented way. In response to the lockdowns and other social distancing measures to curb the spread of COVID-19, many firms turned to remote working arrangements, relying on information and communication technology (ICT) to carry out tasks that previously required physical presence. This unparalleled and synchronized work reorganization has helped mitigate the impact of COVID-19 on output, job losses, and productivity, especially for occupations that do not require close physical proximity. Even after the pandemic subsides, remote work setups are likely to remain in place and shape the future of work in many occupations.

Remote work setups depend largely on two key factors: (1) the nature and the task content of jobs, and (2) the availability of proper ICT infrastructure:

- High-skilled jobs that require high degrees of cognitive nonroutine and/or interpersonal tasks are more likely to be performed remotely through ICT (World Bank 2019). By contrast, jobs intensive in routine and/or manual tasks, often performed by low-skilled workers, are less likely to be performed remotely (WEF 2020).
- Even if the content of certain jobs can be performed remotely, the actual possibility to work remotely is crucially dependent on the availability of adequate infrastructure, such as computing power and high-quality internet, that allows adequate telecommunication.

These two factors explain the bifold labor market outcomes through the pandemic across countries. In advanced economies, during the first year of the pandemic, close to...
The reduced need to commute from home to work could mitigate issues associated with the lack of efficient transportation infrastructure, which has been shown to hinder women’s labor market participation in many MENA countries (Fogli and Veldkamp 2011). In addition, working from home could allow workers to rely on more flexible work schedules, something that can be particularly useful for women (who may need to balance paid work with household duties and family care) and young people (who may need to balance work with studying) (ILO 2021). On the downside, however, remote work could forestall the building of formal infrastructure.

Half of the workers were able to work from their homes, given the analytical and nonroutine nature of their jobs (WEF 2020). By contrast, it is estimated that only 10 to 20 percent of urban jobs in developing countries could be performed remotely (Gottlieb, Grobovšek, and Poschke 2020; Gottlieb and others 2021), owing to the relatively larger share of workers engaged in noncognitive and routine jobs and the relatively less developed ICT infrastructure.

Remote work could bring new opportunities for (high-skilled) women and the young, who have generally found it more difficult to find (formal) jobs in the MENA region.

Sources: Frey and Osborne (2017); Bureau of Labor Statistics; ONET; and IMF staff calculations.
Note: The figure uses International Organization for Standardization (ISO) country codes.
Recent literature has measured the extent to which jobs can be done remotely and identified the sectors and countries that are more likely to be impacted by the widening use of remote work. Using the O*NET database and detailed labor surveys, Dingel and Neiman (2020) review the characteristics of almost 1,000 occupations in the US economy to assess whether they can be performed remotely. For example, they look at whether the job requires physical activity, an outdoor location, specific equipment, or frequent contact with the public. Using this information, they build an index of tele-workability for each occupation. They find that occupations that rely on cognitive skills and carry a wage premium are more adaptable to remote settings (Figure 4.7). Using the share of occupations within economic sectors, Dingel and Neiman build indexes of tele-workability for US sectors and use them to determine the extent to which a country has jobs that can be performed remotely. Their sample covers 85 countries, including 4 MENA countries (Afghanistan, Egypt, Pakistan, and United Arab Emirates). They find that there is a strong positive correlation between the share of jobs that can be performed remotely and a country’s GDP per capita (Figure 4.8). MENA countries fit within this general correlation pattern, with the exception of the United Arab Emirates, which shows a lower value of the index relative to what is predicted by the level of income, possibly reflecting the importance of the oil sector in value added and the fact that few jobs in that sector can be performed remotely.

One limitation of Dingel and Neiman’s study is that they utilize US sector-specific indexes of tele-workability, while technological differences across countries may lead to very different job characteristics compared to the United States, especially for low-income countries. To mitigate this problem, many studies have relied on country-specific labor surveys (see Garrote Sanchez and others 2021). In particular, Hatayama, Viollaz, and Winkler (2020) build an index of remote work amenability for Egypt, Jordan, and Tunisia that is based on the specific characteristics of occupations in these three countries, controlling for internet access both at work and at home. They find that, on average, for these MENA countries:

- Tasks performed by professionals and clerical workers are more likely to be done remotely than those performed

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4 The country indexes are estimated by first building an index of tele-workability for US sectors, using the share of occupations \( o \) in sector \( i \) in the US economy. Once the sector indexes are obtained, country indexes are obtained by using the shares of employment by sector in the 85 countries considered in the study.

5 Gottlieb, Grobovsek, and Poschke (2020); Mongey, Pilossoph, and Weinberg (2020); Garrote Sanchez and others (2021); and Brusevich, Daha-Norris, and Khalid (2020) all extend Dingel and Neiman’s influential study and find that high-income countries have a higher share of jobs that can be performed remotely compared to low-income countries.

6 Based on data from Labor Market Panel Surveys.
by crafters and elementary workers (for which in-person, routine tasks requiring some degree of physical activity are more prevalent) (Figure 4.9).

- **IT, finance, professional services, and education** are more amenable to remote work than sectors such as construction, agriculture, and manufacturing (Figure 4.10).

- **Women** are more likely to have jobs amenable to remote work, as they are less likely to work in physical/manual jobs than men (Figure 4.11).7

- **Workers with higher (college) education** are more likely to work remotely, given the more cognitive tasks performed at their jobs, especially compared to noncollege workers, who are more likely to perform more manual and routine tasks.

- **Older workers** are less likely to have jobs amenable to remote work. This finding is the result of counteracting forces. On the one hand, physical/manual tasks tend to decline with age while supervision roles tend to increase with age, making jobs of older workers more feasible to be performed remotely. On the other hand, ICT adoption declines with age, which tends to reduce older workers’ remote work amenability. For the MENA countries in the sample, the second effect seems to dominate.8

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7 This finding has also been documented in other regions of the world (see Garrote Sanchez and others 2021).

8 Garrote Sanchez and others (2021) find that the first effect seems to dominate in other regions of the world, as remote work amenability increases with age in Turkey, Brazil, Mexico, India, and the European Union.
Workers in formal jobs are more likely to be amenable to remote work than those in informal jobs, as they tend to have fewer manual intensive tasks and higher ICT usage (also thanks to appropriate training from their employers).

To measure the effective remote work amenability in the MENA region, we follow a similar strategy as with the automation indexes, that is, we adapted the indexes of remote work amenability by sectors built by Hatayama, Viollaz, and Winkler (as the average for Egypt, Jordan, and Tunisia) with MENA country–specific sector employment shares.\(^9\)

As in Dingel and Neiman (2020), we find that high-income MENA countries are more amenable to setting up

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\(^9\) The remote work amenability index for the MENA region is built based on the relative values in Figure 4.10.
remote work, as a relatively larger share of their workforce is employed in professional services sectors (Figure 4.12). Among middle-income MENA countries, Jordan and Lebanon also stand out for displaying high remote work amenability. On the other hand, Morocco, Pakistan, and Afghanistan present the least opportunities for remote work, consistent with their relatively larger concentration of employment in the agricultural sector.

As stated previously, remote work may offer greater opportunities for women in the MENA region to join the labor market. In which countries in the region is remote work expected to create the most labor market opportunities for women? To answer this question, we build a national remote work female inclusion index (described in Box 4.1) based on three indicators: (1) female labor force participation, (2) internet access, and (3) female human capital index. Intuitively, the setup of remote work would have the most impact on female labor market opportunities in the MENA countries with lower female labor participation, greater internet access, and higher estimated female human capital.

This seems to be the case mainly for Saudi Arabia, Iran, and Jordan (Figure 4.13). By contrast, countries with low connectivity, such as Yemen, and/or low educational scores, such as Iraq or Egypt, are less likely to benefit from

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10 One exception is Qatar, which, despite having a high GDP per capita, displays low levels of remote work amenability due to a large share of its workforce concentrated in the construction sector.

remote job opportunities for women. Several high-income MENA countries, such as the United Arab Emirates, Kuwait, and Qatar, have relatively good access to the internet and high human capital indicators but score low in the overall index as they already have relatively high female labor participation rates, although mainly because of the significant number of female expatriate workers.

CONCLUSIONS

The acceleration in automation and remote work presents both challenges and opportunities for the MENA region in the years to come. We find that its labor force is relatively more vulnerable to automation compared to other regions, but with differences varying across skill, gender, and sector. The overall vulnerability is attributable to the dominance of sectors such as construction and manufacturing—all of which are performed largely by occupations that tend to be routine and noncognitive in nature. The MENA region has not pivoted away from high levels of employment in low- and medium-skill occupations, which tend to be routine and nonanalytical in nature. This reliance is even more prominent in the private sector—a feature that may limit the region’s dynamism. On a positive note, our analysis suggests that female employment is relatively less vulnerable to automation.

Remote work has undergone a rapid expansion following the COVID-19 pandemic and may be here to stay for years to come. Establishing remote work environments can be logistically challenging, but may provide opportunities to some excluded demographics, such as women. In general, countries that tend to have more employment in professional areas (like countries from the Gulf Cooperation Council) or that have invested more in ICT infrastructure (like Jordan) are more likely to leverage remote work opportunities.

These trends, which are already shaping the job landscape in the region, make it even more imperative to remove existing barriers and prepare the labor market for the future, thus ensuring that the MENA region can tap into its demographic dividend and growing labor force. This requires a well-sequenced policy agenda with a focus on the following pillars:

- Strengthen and improve the education system to remove skills gaps and mismatches. This can be achieved by upskilling/reskilling the current workforce and better aligning educational programs with employer needs. Additionally, improving the quantity and quality of education at all levels, including vocational training for middle-age workers, will create a more productive workforce.
- Boost public investments in digitalization and internet connectivity, both in urban and rural areas, to ensure broad access and adequate connectivity to the whole population.
- Reform labor market codes and regulation to cater to the shifting attitudes and changing makeup of the workforce. This would not only require removing obstacles to more flexible work arrangements at firm level, but also introducing measures that better regulate and protect the “jobs of the future.”

REFERENCES


CHAPTER 5

Addressing Gender Gaps in MENA Labor Markets

HIPPOLYTE BALIMA • DIEGO GOMES

INTRODUCTION

As shown in Chapter 1, the Middle East and North Africa (MENA) region fares quite poorly in terms of multidimensional gender equality when compared to other regions (Figure 5.1). This outcome is not being driven by large gender differences in access to basic services like education and health, but rather reflects large disparities existing in participation in economic life and political empowerment (Figure 5.1).

Labor market gender disparities are alarming. Despite substantial progress in the last few years, female labor force participation (LFP) in the MENA region is the lowest globally, at only about 29 percent in 2020 (Figure 5.2), almost half the level observed in other regions with similar income per capita. In addition, once women participate in MENA labor markets, they are more likely to be unemployed, to work in the informal sector, and to have both lower wages and fewer hours worked compared to men (Angel-Urdinola and Tanabe 2012; Dabla-Norris and Kochhar 2019; Assaad and others 2020).

Previous studies on the drivers of the gender gap in the MENA labor market highlighted a large number of potential determinants, including structural factors related to countries’ levels of economic development (such as demographic, education, and infrastructure), policy distortions (mainly related to labor market regulation and tax and transfers systems), and legal barriers (Gonzales and others 2015; Hakura and others, 2016; Hyland, Djankov, and Goldberg 2021). This chapter builds from this literature to address three main questions. First, what is the role of structural and policy factors in explaining gender gaps in MENA labor markets, compared to other regions? Second, what are the main obstacles to greater female LFP and employment in the MENA region? Third, what are the macroeconomic implications of the MENA region’s gender gaps?

To answer these questions, we first use a regression framework that attempts to quantify the relative contribution of structural, legal, and policy factors to gender gaps in MENA labor markets, compared to other regions. Then we assess the economic impact of these gender gaps by using a micro-founded, dynamic general equilibrium model that builds in gender differences in LFP and is calibrated to Egypt.

We find that disparities in basic and financial legal rights are the most important determinant of the lower female participation and employment in the MENA region compared to other regions, while changes in labor market legislation that make workplace, pay, and parental leave conditions more gender friendly could also help reduce the existing large gender gaps in regional labor markets. Taking Egypt as a case study, the model simulations show that reducing the barriers to female labor market participation would trigger a series of positive effects on the economy. The greater number of “effective” hours worked would increase GDP and average household income and reduce income inequality measured by the Gini index.1 The rest of the chapter is organized as follows: the second section presents the data and the structural and policy indexes, the third discusses the empirical framework and results, the fourth documents the model analysis, and the fifth concludes.

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1 Effective hours worked are regular hours worked adjusted for human capital levels. This is the relevant labor input concept for assessing variations in production.
Sources: Georgetown Institute for Women, Peace, and Security; World Economic Forum Global Gender Gap Index (GGGI); and IMF staff calculations.

Note: The Middle East and North Africa (MENA) countries are excluded from the income groups.

Figure 5.1. Gender Gaps in the MENA Region and Other Income Groups
STRUCTURAL AND POLICY DETERMINANTS OF GENDER GAPS IN LABOR MARKETS

In this section, we discuss a number of factors that have been proposed in the literature as potential determinants of gender gaps in the labor market (Gonzales and others 2015; Hakura and others 2016; Hyland, Djankov, and Goldberg 2021).

These determinants are grouped into six different dimensions: structural variables, infrastructure, public policies (taxes and transfers), labor market legislation, basic legal rights, and financial-related legal rights. For each of these dimensions, we build an index based on the World Bank’s newly compiled Women, Business and the Law (WBL) database, which contains 35 individual variables on gender gaps in areas that include mobility, workplace and pay conditions, marriage, legislation on parental leave, entrepreneurship, and access to financial services. We complement the WBL data with other variables taken from the World Development Indicators, Barro-Lee educational attainment dataset, United Nations Educational, Scientific, and Cultural Organization Institute of Statistics, and the Fraser Institute (see also Annex 5.1). We build the indexes following the WBL’s methodology: we standardize each subindicator to vary between zero and one, take

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1. Female Labor Force Participation Rate
   (Percent of female population ages 15–64)

2. Female Labor Force Participation Rate
   (Percent of female population ages 15–64)

3. Gender Gap in Labor Force Participation Rate
   (Percentage points)

4. Gender Gap in Labor Force Participation Rate
   (Percentage points)

Note: The gender gap is defined as the male labor force participation rate minus the corresponding rate for females. Regional groups: CA (Central Asia), EDA (Emerging and Developing Asia), EDE (Emerging and Developing Europe), LAC (Latin America and the Caribbean), SSA (sub-Saharan Africa). Income groups: AE (advanced economies), EME (emerging market economies), LIDC (low-income developing countries). MENA = Middle East and North Africa.

Figure 5.2. Labor Force Participation in the MENA Region and Other Regional and Income Groups
their unweighted average, and scale the result to 100, with a higher value pointing to less favorable conditions for female LFP and employment:

- **Structural variables index.** This index includes three variables: (1) the fertility rate, (2) average years of schooling for women, and (3) GDP per capita. There is evidence of a negative relationship between fertility and women’s LFP and employment, as the birth of a child generally reduces women’s labor supply (Bloom and others, 2009; Mishra and Smyth 2010). More education may foster women’s participation and employment in the labor market, including by indirectly delaying marriage and the birth of the first child (Eckstein and Lifshitz 2011; Heath and Jayachandran 2016). GDP per capita is a proxy for the level of development, with the literature pointing to a U-shaped relationship between female employment and economic development (Goldin 1995; Tam 2011).

- **Infrastructure index.** This index includes four variables: (1) access to electricity, (2) drinking water services, (3) sanitation services, and (4) preprimary enrollment ratio (proxy for preprimary education facilities). All these variables are expected to be positively correlated with female LFP and employment; given that women are more often responsible for household activities, inadequate infrastructure could disproportionally affect their labor market participation (Ghani, Kerr, and O’Connell 2013; and Norando 2010).

- **Public policy index.** This index intends to capture the gender-relevant aspects of tax and transfer systems, and so includes the following variables: (1) whether the retirement age is equal across gender, (2) whether employment leave caused by childcare counts toward pension benefits, (3) the marginal income tax rate, and (4) the provision of government transfers and subsidies to households. Properly designed leave benefits can support the return to work after maternity (leaving a job to take care of family members is often the reason why women have smaller pensions at the end of their working life) (Berger and Waldfogel 2004). High marginal income tax rates could discourage women who are second family earners to join the (formal) labor market, as this would raise the overall household tax burden without an increase in benefits (that may accrue already to the households, thanks to the formal job of the husband) (Galiani and Weinschelbaum 2012).

- **Labor market legislation index.** This index captures forms of gender discrimination in national labor legislation, with reference to the workplace, pay, and parental leave conditions. Gender discrimination related to working conditions (including salaries and hours of work) have been shown to stifle female entrepreneurship and labor supply (Ogloblin 1999; Hallward-Driemeier and Gajigo 2015; Zveglich and Rodgers 2003; Amin and Islam 2015). Research suggests that well-designed maternity leave could positively affect women’s employment decisions (Berger and Waldfogel 2004; Bailey and others 2019).

- **Basic legal rights index.** This index covers legislation that restricts women's mobility (including the right to travel outside their home and country, choose where to live, and obtain a passport) and their position within the household (including whether a woman can legally be the head of her household as well as legislation on domestic violence, divorce, and the right to remarry). Previous studies show that the limitations to mobility reduce female participation in economic life (Islam, Muzi, and Amin 2019; Htun, Jensenius, and Nelson-Núñez 2019) and that there is a clear negative relationship between restrictions on women’s rights within their households and female labor supply (Chiappori, Fortin, and Lacroix 2002; Gonzales and others 2015).

- **Financial-related legal rights index.** This index captures legal gender disparities with regard to women’s ability to start and run a business, access credit, sign a contract, or open a bank account. It also captures legal barriers related to women’s property ownership rights, inheritance rights (for both children and surviving spouses), authority over assets during marriage, and the valuation of nonmonetary contributions. Previous studies show that greater access to financial services and improved property rights are associated with higher female LFP and greater likelihood of being employed (Gonzales and others 2015; Heath and Tan 2019).

Figure 5.3 shows the average values of the structural and policy indexes for the MENA region and peer groups of countries. The MENA region ranks lowest across three dimensions: basic legal rights, financial-related legal rights, and labor market legislation. This could suggest that, a priori, policy improvements in these dimensions may be crucial in reducing the gender gaps in the labor market in the region.

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5 At the early stages of development, when agriculture represents a large share of overall employment, women tend to perform unpaid work in their family. As economies reallocate more resources into manufacturing, women tend to withdraw from the labor force, as opportunities for unpaid work become scarcer and women find it difficult to have a formal job while caring for children. With higher levels of development and further reallocation of resources into services, more job opportunities cause female employment to increase again.

4 Legal limitations to part-time work are also likely to affect women disproportionately (Del Boca 2002; Jaumotte 2003). While an indicator of these limitations is not widely available for MENA countries, the other variables are likely to be highly correlated with restrictions to part-time work.

5 To a certain extent, these laws reflect countries’ social norms. Aldashev and others (2012) discuss the interplay between social norms and the formal legal system.
EMPIRICAL ANALYSIS

In this section, we use a panel regression framework to quantify the role played by each index in determining labor market gender gaps in the MENA region. To do so, we use the regressions' estimated coefficients to decompose the relative contribution of the structural and policy indexes to the relatively greater labor market gender gaps in the MENA region (compared to other regions). Our sample consists of 139 countries, including all MENA countries, over the 1990 to 2019 period. We use the following specification:

\[ Y_{it} = \beta_1 + \beta_2 X_{it} + \epsilon_{it} \]  

(5.1)

where \( Y_{it} \) represents the female-to-male LFP rate or the female-to-male employment rate for country \( i \) at year \( t \) (from the World Bank’s gender database), \( X_{it} \) represents the index \( i \) at time \( t \), and \( \epsilon_{it} \) is the error term. We estimate the model using a maximum likelihood estimator and use lagged values of the independent variables to address the risk of endogeneity and reverse causality (still, the reduced form specification does not allow us to make causal statements). The inclusion of many variables in panel regressions also raises the issue of multicollinearity; high correlation across the indexes would hinder the identification of their relative contribution to the gender gaps. Table 5.1 shows that the correlations across the indexes are generally low, with the exception of the one between structural variables and infrastructure, and basic and financial legal rights. In addition, the multicollinearity tests based on the variance inflation factor show little evidence of collinearity.

<table>
<thead>
<tr>
<th>TABLE 5.1</th>
<th>Matrix of Correlations of the Indexes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Structural</td>
</tr>
<tr>
<td>Structural</td>
<td>1</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>0.635</td>
</tr>
<tr>
<td>Public policy</td>
<td>0.157</td>
</tr>
<tr>
<td>Labor market legislation</td>
<td>0.476</td>
</tr>
<tr>
<td>Basic legal rights</td>
<td>0.373</td>
</tr>
<tr>
<td>Financial-related legal rights</td>
<td>0.401</td>
</tr>
</tbody>
</table>

Source: IMF staff calculations.
We find that, for both LFP and employment rates, the basic and financial legal rights indexes are the most important determinant of the greater gender gaps in the MENA region with respect to other regional and income groups (Figure 5.4). On average, in the MENA region, the explained (positive) difference in the female-to-male LFP rate is 20 percentage points greater than in advanced economies, and the legal (basic plus financial) right indexes explain about 17 percentage points of such difference (or about 85 percent). Taking the average of these indexes in the MENA region to the same average level in advanced (emerging market) economies could close 87 percent of the difference in LFP gaps between these regions. After basic and financial legal rights, differences in labor market legislation contributes the most to the higher labor market gender gaps in the MENA region. (They explain about 6 percent of the greater LFP gender gaps in advanced economies and 4 percent in emerging market economies.)

Table 5.2 shows the results of the regressions based on our large panel of countries. All coefficients have the expected sign and are statistically significant, with the exception of the infrastructure index (possibly reflecting its high correlation with the structural variable index, as countries with higher GDP per capita also tend to have better infrastructure).

We can then compute to what extent these indexes can account for the (predicted) differences between the MENA region and other regions in the LFP and employment gender gaps. To do so, we multiply the regression coefficients by the difference in the value of the respective index between the MENA region and the peer group of countries on that dimension.

We find that, for both LFP and employment rates, the basic and financial legal rights indexes are the most important determinant of the greater gender gaps in the MENA region with respect to other regional and income groups (Figure 5.4). On average, in the MENA region, the explained (positive) difference in the female-to-male LFP rate is 20 percentage points greater than in advanced economies, and the legal (basic plus financial) right indexes explain about 17 percentage points of such difference (or about 85 percent). Taking the average of these indexes in the MENA region to the same average level in advanced (emerging market) economies could close 87 percent of the difference in LFP gaps between these regions. After basic and financial legal rights, differences in labor market legislation contributes the most to the higher labor market gender gaps in the MENA region. (They explain about 6 percent of the greater LFP gender gaps in advanced economies and 4 percent in emerging market economies.)

Table 5.2 shows the results of the regressions based on our large panel of countries. All coefficients have the expected sign and are statistically significant, with the exception of the infrastructure index (possibly reflecting its high correlation with the structural variable index, as countries with higher GDP per capita also tend to have better infrastructure).

We can then compute to what extent these indexes can account for the (predicted) differences between the MENA region and other regions in the LFP and employment gender gaps. To do so, we multiply the regression coefficients by the difference in the value of the respective index between the MENA region and the comparator region. Therefore, the importance of a particular index depends on the size of its effect in the regression and how different the MENA region and the peer group of countries on that dimension are.6

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6 The sum of the contributions of the explanatory indexes equals the total difference in predicted LFP or employment rate between the MENA region and the corresponding comparator region.
In this section, we look at the impact of gender-related policies in a microfounded, lifecycle, dynamic general equilibrium model, in which individuals differ by gender, skills, age, and access to financial markets. We calibrate the model to match key variables of Egypt’s economy in 2018, both as a robustness check we also run regressions on one index at a time, and we compare the goodness of fit of the different regressions based on standard metrics like the Akaike information criterion and the Bayesian information criterion (a method called “dominance analysis”). This exercise also allows us to better control for multicollinearity issues faced in the previous regressions, where all indexes were introduced at the same time. The results confirm our previous findings: the basic legal rights index has the largest contribution to the model fit for both LFP and employment gender gaps in the MENA region, followed by the financial-related legal rights, labor market legislation, and public policy indexes, respectively (Figure 5.5).

Figure 5.4. Accounting for the Relatively Higher Labor Market Gender Gaps in the MENA Region

Figure 5.5. Dominance Analysis on the MENA Region

As a robustness check we also run regressions on one index at a time, and we compare the goodness of fit of the different regressions based on standard metrics like the Akaike information criterion and the Bayesian information criterion (a method called “dominance analysis”). This exercise also allows us to better control for multicollinearity issues faced in the previous regressions, where all indexes were introduced at the same time. The results confirm our previous findings: the basic legal rights index has the largest contribution to the model fit for both LFP and employment gender gaps in the MENA region, followed by the financial-related legal rights, labor market legislation, and public policy indexes, respectively (Figure 5.5).

Figure 5.5. Dominance Analysis on the MENA Region

The framework has been applied to previous IMF country work concerning Argentina (IMF 2017), Iran (IMF 2018), Nigeria (IMF 2019a), Lao P.D.R. (IMF 2019b), and Senegal (Malta, Martinez, and Tavares 2019).

MODEL ANALYSIS

In this section, we look at the impact of gender-related policies in a microfounded, lifecycle, dynamic general equilibrium model, in which individuals differ by gender, skills, age, and access to financial markets. We calibrate the model to match key variables of Egypt’s economy in 2018, both
Addressing Gender Gaps in MENA Labor Markets

A full and technical description of the model can be found in Malta, Martinez, and Tavares (2019), but here we briefly describe its main features. In each life period, households (comprised of a man and a woman) make decisions about the consumption of goods and services produced in formal and informal sectors, while decisions on labor supply are made separately by men and women. Men decide the number of hours worked in the formal and/or informal sectors, while women decide first if they will participate in the labor market and, if they do, how many hours to work in the formal and/or informal sectors. Households incur a utility cost when women participate in the labor market.

This cost comes from the need to coordinate multiple household activities (for example, home production, child/elderly care, and other unpaid work) as well as comply with laws and social norms that create barriers for women to work outside the household.

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8 The microdata set used is the 2018 vintage of the Egypt Labor Market Panel Survey.
purchased from the formal sector, and on the income earned from working in the formal sector. Corporate revenues in the formal sector are taxed as well. The government collects taxes on formal consumption, formal labor income, and formal corporate revenues, and spends them on public consumption, public education, and transfers.

In the model, the presence of gender disparities in basic legal rights is introduced as a greater utility cost that households incur when women decide to work, which acts as a disincentive for their participation in the labor market. While in principle the utility cost may capture other factors not directly related to basic legal rights, when we calibrate this cost, we guide ourselves by the empirical results on the impact of basic legal rights barriers on female LFP presented in the previous section.

In our simulations, we assess the economic impact of Egypt having the same basic legal rights for women as the average in advanced economies, emerging market economies, and low-income developing countries. To do so, we compute the difference between the 2018 values of the basic legal rights index for Egypt and the other income groups and multiply these differences by the estimated coefficient in the LFP regression. This yields the female LFP rate that Egypt could achieve if it had the same level of basic legal rights as the other income groups. Then, for each simulated scenario, we recalculate the utility cost so that the model reproduces exactly those LFP rates.

The main findings of the simulations are presented in Figures 5.6a and 5.6b. Taking Egypt’s basic legal rights to the average for other regions has the potential to increase its female LFP by between 37 and 53.4 percent (compared to low-income developing countries and advanced economies, respectively). Such an increase triggers a series of positive effects on the economy. As women, on average, have higher levels of education than men in Egypt, greater female participation in the labor market increases the number of effective hours worked (7 to 10.3 percent).

As a consequence, total output in the economy measured by GDP also grows (8.8 to 12.9 percent), and so does (average) household income (6.7 to 9.9 percent). Furthermore, as most of the new female workers tend to be at the bottom of the income distribution (with the greatest incentive to start working and help increase family consumption), household income inequality (measured by the Gini index) decreases (–1.73 to –2.39 percentage points).

A consequence of higher female participation in the labor market is the reduction in effective hours worked by men in

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The estimated impact would be lower for countries where women’s educational attainment is lower.
the formal sector and its increase in the informal sector. Given women’s higher levels of education in Egypt, new female workers are more likely to enter the more productive formal sector. Therefore, women’s effective working hours in the formal sector increase (32.7 to 48.1 percent). This crowds out, to some extent, male formal labor supply, leading to a reduction in men’s effective hours worked in the formal sector (-7.1 to -10.4 percent) and an increase of those in the informal sector (3.2 to 4.6 percent). However, the overall effect of the changes is less informality, as the share of formal sector output in GDP increases (1.6 to 2.27 percentage points). In addition, total tax revenues go up (5.7 to 8.4 percent) due to higher tax collection from formal labor income, formal consumption of goods and services, and formal corporate revenues.

CONCLUSIONS

Gender-based disparities in basic and financial legal rights, and to a lesser extent in labor market legislation, help explain the relatively low female LFP in the MENA region. While to a certain extent, legal rights disparities are linked to well-entrenched and difficult to change social norms, reviewing and reforming laws that are currently biasing women’s mobility and position within the household appears as a precondition for a greater female LFP in the MENA region. Our simulations show that the economic windfall of such changes in terms of GDP, income distribution, and tax revenues are not negligible.
### ANNEX TABLE 5.1.1.

#### Definitions and Sources of Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic Legal Rights</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apply for a passport</td>
<td>1 if a woman can apply for a passport in the same way as a man, 0 otherwise</td>
<td>Women, Business and the Law database</td>
</tr>
<tr>
<td>Travel outside the country</td>
<td>1 if a woman can travel outside the country in the same way as a man, 0 otherwise</td>
<td></td>
</tr>
<tr>
<td>Travel outside her home</td>
<td>1 if a woman can travel outside her home in the same way as a man, 0 otherwise</td>
<td></td>
</tr>
<tr>
<td>Choose where to live</td>
<td>1 if a woman can choose where to live in the same way as a man, 0 otherwise</td>
<td></td>
</tr>
<tr>
<td>Obey her husband</td>
<td>1 if there is no legal provision that requires a married woman to obey her husband, 0 otherwise</td>
<td></td>
</tr>
<tr>
<td>Be head of household/family</td>
<td>1 if a woman can be head of household in the same way as a man, 0 otherwise</td>
<td></td>
</tr>
<tr>
<td>Legislation addressing domestic violence</td>
<td>1 if there is legislation specifically addressing domestic violence, 0 otherwise</td>
<td></td>
</tr>
<tr>
<td>Obtain a judgment of divorce</td>
<td>1 if a woman can obtain a judgment of divorce in the same way as a man, 0 otherwise</td>
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</tr>
<tr>
<td>Rights to remarry</td>
<td>1 if a woman has the same rights to remarry as a man, 0 otherwise</td>
<td></td>
</tr>
<tr>
<td><strong>Financial-Related Legal Rights</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sign a contract in the same way as a man</td>
<td>1 if a woman can sign a contract in the same way as a man, 0 otherwise</td>
<td>Women, Business and the Law database</td>
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<tr>
<td>Register a business in the same way as a man</td>
<td>1 if a woman can register a business in the same way as a man, 0 otherwise</td>
<td></td>
</tr>
<tr>
<td>Open a bank account</td>
<td>1 if a woman can open a bank account in the same way as a man, 0 otherwise</td>
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</tr>
<tr>
<td>Prohibition of gender-based discrimination in access to credit</td>
<td>1 if the law prohibits discrimination in access to credit based on gender, 0 otherwise</td>
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</tr>
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<td>Equal ownership rights to property</td>
<td>1 if men and women have equal ownership rights to immovable property, 0 otherwise</td>
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</tr>
<tr>
<td>Sons/Daughters equal rights to inherit assets</td>
<td>1 if sons and daughters have equal rights to inherit assets from their parents, 0 otherwise</td>
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</tr>
<tr>
<td>Spouses equal rights to inherit assets</td>
<td>1 if male and female surviving spouses have equal rights to inherit assets, 0 otherwise</td>
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</tr>
<tr>
<td>Spouses equal administrative authority over assets</td>
<td>1 if the law grants spouses equal administrative authority over assets during marriage, 0 otherwise</td>
<td></td>
</tr>
<tr>
<td>Valuation of nonmonetary contributions</td>
<td>1 if the law provides for the valuation of nonmonetary contributions, 0 otherwise</td>
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</tr>
</tbody>
</table>

(continued)
## ANNEX TABLE 5.1.1. (continued)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Labor Market Legislation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get a job in the same way as a man</td>
<td>1 if a woman can get a job in the same way as a man, 0 otherwise</td>
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</tr>
<tr>
<td>Prohibition of discrimination based on gender in employment</td>
<td>1 if the law prohibits discrimination in employment based on gender, 0 otherwise</td>
<td></td>
</tr>
<tr>
<td>Legislation on sexual harassment in employment</td>
<td>1 if there is legislation on sexual harassment in employment, 0 otherwise</td>
<td></td>
</tr>
<tr>
<td>Criminal penalties for sexual harassment in employment</td>
<td>1 if there are criminal penalties or civil remedies for sexual harassment in employment, 0 otherwise</td>
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</tr>
<tr>
<td>Equal remuneration for work of equal value</td>
<td>1 if the law mandates equal remuneration for work of equal value, 0 otherwise</td>
<td></td>
</tr>
<tr>
<td>Work the same night hours as men</td>
<td>1 if a woman can work at night in the same way as a man, 0 otherwise</td>
<td>Women, Business and the Law database</td>
</tr>
<tr>
<td>Work in jobs deemed dangerous</td>
<td>1 if a woman can work in a job deemed dangerous in the same way as a man, 0 otherwise</td>
<td></td>
</tr>
<tr>
<td>Work in the same industries as men</td>
<td>1 if a woman can work in an industrial job in the same way as a man, 0 otherwise</td>
<td></td>
</tr>
<tr>
<td>Paid leave of at least 14 weeks available to women</td>
<td>1 if paid leave of at least 14 weeks is available to mothers, 0 otherwise</td>
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</tr>
<tr>
<td>Paid leave available to fathers</td>
<td>1 if there is paid leave available to fathers, 0 otherwise</td>
<td></td>
</tr>
<tr>
<td>Paid parental leave available</td>
<td>1 if there is paid parental leave, 0 otherwise</td>
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</tr>
<tr>
<td>Maternity leave benefits 100% administered by governments</td>
<td>1 if the government administers 100% of maternity leave benefits, 0 otherwise</td>
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</tr>
<tr>
<td>Prohibition of dismissal of pregnant workers</td>
<td>1 if dismissal of pregnant workers is prohibited, 0 otherwise</td>
<td></td>
</tr>
<tr>
<td><strong>Public Policy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal retirement age with full pension benefits</td>
<td>1 if the age at which men and women can retire with full pension benefits is the same, 0 otherwise</td>
<td>Women, Business and the Law database</td>
</tr>
<tr>
<td>Equal retirement age with partial pension benefits</td>
<td>1 if the age at which men and women can retire with partial pension benefits is the same, 0 otherwise</td>
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</tr>
<tr>
<td>Equal mandatory retirement age</td>
<td>1 if the mandatory retirement age for men and women is the same, 0 otherwise</td>
<td>Women, Business and the Law database</td>
</tr>
<tr>
<td>Absence due to childcare accounted for in pension benefits</td>
<td>1 if periods of absence due to childcare are accounted for in pension benefits, 0 otherwise</td>
<td></td>
</tr>
<tr>
<td>Top marginal tax rate</td>
<td>Top marginal tax rate rating, countries with higher marginal tax rates that take effect at lower income thresholds received lower ratings</td>
<td>Fraser Institute</td>
</tr>
<tr>
<td>Transfers and subsidies</td>
<td>Transfers and subsidies rating, with lower ratings for countries with larger transfer sectors.</td>
<td></td>
</tr>
<tr>
<td><strong>Infrastructure</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access to electricity</td>
<td>Access to electricity (% of population)</td>
<td>World Development Indicators</td>
</tr>
<tr>
<td>Drinking water services</td>
<td>People using at least basic drinking water services (% of population)</td>
<td></td>
</tr>
<tr>
<td>Sanitation services</td>
<td>People using at least basic sanitation services (% of population)</td>
<td>UNESCO Institute of Statistics</td>
</tr>
<tr>
<td>Preprimary enrollment ratio</td>
<td>Government expenditure on preprimary education (% of GDP)</td>
<td></td>
</tr>
<tr>
<td><strong>Structural</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP per capita</td>
<td>GDP per capita (constant 2010 US$)</td>
<td>World Development Indicators</td>
</tr>
<tr>
<td>Fertility</td>
<td>Fertility rate, total (births per women)</td>
<td>Barro-Lee Educational Attainment Dataset</td>
</tr>
<tr>
<td>Years of schooling</td>
<td>Years of secondary schooling</td>
<td></td>
</tr>
</tbody>
</table>
REFERENCES


CHAPTER 6

Improving Human Capital in the MENAP Region through Adequate and Efficient Social Spending

ANASTASIA GUSCINA

INTRODUCTION

As discussed in IMF 2018, while many countries in the Middle East, North Africa, Afghanistan, and Pakistan (MENAP) region have achieved significant improvements in basic socioeconomic indicators, they still lag peer countries (see also Chapter 1 of this book). The COVID-19 crisis threatens to undo these hard-won gains in making growth more inclusive, as its persistent effects could worsen poverty and inequality, deteriorate health outcomes and educational attainment, and widen the gender gap (IMF 2021). This risk is exacerbated by the fact that despite the prompt response to the pandemic, the levels of public social spending in the MENAP region remain relatively low.

This chapter, based on the Mathai, Duenwald, and Guscin Departmental Paper, “Social Spending for Inclusive Growth in the Middle East and Central Asia,” (Mathai, Duenwald, and Guscin 2020) examines the role of social spending in improving socioeconomic outcomes in the MENAP region. It addresses two main questions: (1) How important is social spending as a determinant of social economic outcomes? and (2) What role can social spending play in making growth more inclusive in the MENAP region, in view of the still unfolding COVID-19 crisis?

This chapter shows that public spending on education, health, and social protection can have a meaningful impact on inclusive growth indicators. Some MENAP countries—particularly those where public social spending is relatively low—may need to focus on raising that spending. To finance critical social spending needs while protecting fiscal sustainability, may require reallocations within existing budget envelopes and/or expansion of those envelopes via increased revenue mobilization, as many countries in the region have done in recent years (IMF 2018).

Nearly all MENAP countries should also aim to increase the efficiency of social spending, particularly those with limited capacity to expand their fiscal space and those that fall significantly below the efficiency frontier. The gap in outcomes between MENAP countries and global comparators is larger than that in spending, suggesting that not only the amount but also the efficiency of social spending may need to be enhanced. Improving efficiency may require improving the targeting of social protection (while ensuring that intended beneficiaries are not mistakenly excluded), addressing existing gaps (for instance, eliminating gender gaps in access to education), promoting financial inclusion (which can facilitate the payment of benefits and reduce the scope for corruption), and perhaps most challenging—strengthening institutions and improving transparency and accountability.

The region can build on its response to the pandemic. Most MENAP countries were able to quickly mobilize resources for additional health care and social protection outlays in response to the COVID-19 crisis. While the crisis is still ongoing, the experience so far already offers valuable lessons on how to reprioritize expenditure and improve spending efficiency, including through greater use of digital technologies. To prevent long-term deterioration in socioeconomic indicators, governments’ COVID-19 responses should proactively target vulnerable groups, including women, informal sector workers, and refugees.
SOCIOECONOMIC INDICATORS, SOCIAL SPENDING, AND THE IMPACT OF THE COVID-19 PANDEMIC IN THE MENAP REGION

MENAP countries made impressive gains in health and education outcomes over the past two decades (Figure 6.1). Economies in the MENAP region posted larger-than-average socioeconomic gains over the past few decades. Tunisia and Oman, for instance, are among the top 20 countries worldwide in terms of increasing secondary-school enrollment since 1990, and Morocco is in the top 20 countries for improvements in the Human Development Index (HDI). Improvements in educational outcomes reflect progress in closing the gender gap with peer countries, particularly for MENAP LIC economies, although a few high-income economies like Saudi Arabia also made significant progress in eliminating gender gaps in access to education.

However, the rate of progress in improving socioeconomic outcomes has slowed recently, and the region still lags its peers in many socioeconomic indicators (Chapter 1). Despite their higher income levels, the Gulf Cooperation Council’s (GCC’s) infant mortality rate is twice that of advanced economies (AEs). Infant mortality is also higher in low-income MENAP countries compared to their global counterparts. Similar trends are also visible in education, where MENAP emerging markets (EMs) lag their peers in secondary school enrollment rates (by 13.9 percentage points [pps]), expected years of schooling (by 1.4 years), and adult literacy rates (by 17 pps). The region also lags global peers in aggregate indicators of well-being. For example, despite much higher gross national income per capita, GCC countries have lower HDI scores than AEs globally. Emerging and low-income MENAP countries lag their comparators in both gross national income per capita as well as HDI scores. Inequality-adjusted HDI scores are also relatively low in emerging and low-income MENAP countries.

The ongoing COVID-19 crisis threatens to magnify pre-existing inequalities and reduce social mobility, causing disparities to persist and even widen over time (Hill and Narayan 2020). Poorer individuals are likely to find it more difficult to practice social distancing, as they often live in more crowded neighborhoods and houses, have lower access to water and sanitation, rely more on public transport, and are less able to work from home (Papageorge and others 2020). The crisis is also expected to have a disproportionate impact on women and the young:

- **Disruptions to education threaten the social mobility and future earning potential of today’s youth.** Realized education losses in 2020 due to required school closures are estimated at 20 percent of the school year in AEs and between 40–50 percent in EMs and LICs (IMF 2021). Children from vulnerable families, who do not have access to remote learning technologies or supplemental tutoring, stand to lose even more (Figure 6.2; IMF 2021). Entering the job market during a recession may have a permanent effect on wages (Altonji, Kahn, and Speer 2016).
- **Job losses were predominately concentrated in the service sector, which tends to employ more women.** More women also work in the informal sector, complicating their ability to claim unemployment benefits or access social protection schemes. The disproportionate burden of childcare and eldercare on women even in normal times has been further magnified by the pandemic, as schools closed and family members became ill (Figure 6.3). More women are on the front lines of fighting the pandemic as well, as 69 percent of health professionals are female (Grown and Sánchez-Páramo 2020). Given the uneven impact of the crisis on women, there is a high risk that gender inequality will widen, and progress achieved over the past two decades in the MENAP region will be reversed. The World Bank provides early evidence that global maternal and fetal outcomes have worsened during the COVID-19 crisis, largely in connection with more limited access to health services (de Paz Nieves, Gaddis, and Muller 2021).

Social Spending

While there is significant cross-country diversity in the region, social spending in the MENAP region is generally lower than in other parts of the world (Figure 6.4). On average, social spending in MENA countries was 9 percent of GDP in 2017, compared to a global average of 14 percent. The gap is largest for the high-income countries in the region (GCC countries), which spend about 17 pps of GDP less than the average for AEs, while the gap with peer countries is 6 pps for MENAP LICs and 3 pps for MENAP EM economies. The difference is also striking in terms of purchasing power parity (PPP) per capita spending. For example, EM countries in the MENAP region spend an

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1. In the chapter, we compare low-income countries in the MENAP region with other low-income countries (LICs), emerging markets in MENAP (EM-MENAP) with other emerging markets (EMs), and GCC countries with advanced economies (AEs). MENAP LICs include Afghanistan, Djibouti, Mauritania, Somalia, Sudan, West Bank and Gaza, and Yemen. MENAP EMs include Algeria, Egypt, Iran, Iraq, Jordan, Lebanon, Libya, Morocco, Pakistan, Syria, and Tunisia. GCC countries include Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the UAE.

2. Over and above the pandemic, technological change is also expected to widen the divide between high- and low-skilled workers and further apply upward pressure on income inequality (IMF 2020).

3. Consistent with IMF (2019), social spending is defined as on-budget government spending on social protection (including both social assistance and insurance), education, and health.
1. Expected Years of Schooling\(^1\) (Change from 1990 to 2017)

2. Secondary School Enrollment\(^2\) (Change from 1990 to 2017)

3. Infant Mortality Rate\(^3\) (Change from 1990 to 2017)

4. Life Expectancy at Birth\(^4\) (Change from 1990 to 2017)

5. Poverty Head Count Ratio at $3.20 a Day (2011 PPP) (Percent of population, change from 1990 to 2017)

6. Learning Poverty (Percent of children unable to read fluently by age 10)

Sources: The World Bank Human Capital Project; World Development Indicators; UNESCO Institute of Statistics; and IMF staff calculations.

Note: AE = advanced economy; EM = emerging market; GCC = Gulf Cooperation Council; LIC = low-income country; MENAP = Middle East, North Africa, Afghanistan, and Pakistan; MENAP EM = emerging markets in MENAP; MENAP LIC = low-income countries in MENAP; PPP = purchasing power parity.

\(^1\) Years a current 2-year-old is expected to spend in school based on current enrollment rates of 2- to 29-year-olds.

\(^2\) Children enrolled in secondary school as a share of that age group; can exceed 100 due to repeaters and late/early enrollments.

\(^3\) Number of deaths in the first year of life per 1,000 live births.

\(^4\) How long, on average, a newborn can expect to live, if current death rates do not change.

**Figure 6.1. Evolution of Socioeconomic Outcomes**
average of $1,220 on social outlays compared to $1,978 spent by EMs globally.

Countries in the MENAP region generally spend less on health and education than any other group, at only 2.6 percent of GDP, compared to the global LIC average of 6.2 percent. The relatively low level of public health spending in MENAP EMs before COVID-19 (1.5 percent of GDP) compared to the EM average (3.3 percent of GDP) points to the unavailability of accessible and high-quality public medical services. Private health care spending is more than half of total health care spending in MENAP LICs, suggesting a significant barrier to health care for the poor and vulnerable (Figure 6.5).

Figure 6.2. Education Losses Due to School Closures and Remote Learning Efficiency in 2020

Figure 6.3. COVID-19 and Gender
these other types of spending may have a social protection element, these are likely to be inferior and distortive compared to well-targeted social protection spending.

The efficiency of social spending has generally been low in the region. Using nonparametric techniques to measure private sector employment (Tamirisa and Duenwald 2018). Likewise, some subsidies amount to a universal transfer to households that disproportionately benefit the rich, at least in absolute monetary terms, and results in resource misallocation.

The gap in social protection spending is particularly striking. In per capita terms, the GCC countries spent about a quarter of global high-income peers’ amounts. This can be partly explained by the much higher spending of GCC countries on subsidies and public wages (Figure 6.6).

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4 A large public wage bill due to high and guaranteed public sector employment and/or a public-private wage premium can be seen as a form of social protection, albeit one that is poorly targeted, adds to budget rigidities, and—in the case of high wage premium—disincentivizes private sector employment (Tamirisa and Duenwald 2018). Likewise, some subsidies amount to a universal transfer to households that disproportionately benefit the rich, at least in absolute monetary terms, and results in resource misallocation.
Improving Human Capital in the MENAP Region through Adequate and Efficient Social Spending

Improving Human Capital in the MENAP Region through Adequate and Efficient Social Spending

Efficiency, including estimating an “efficiency frontier” (Figure 6.7) and “output efficiency scores” (Figure 6.8), suggests that MENAP countries get relatively less “bang for their buck” when it comes to social spending. For example, the efficiency frontier of health care spending (estimated by the IMF [2020] and obtained as the best outcome that countries achieve for any level of spending) shows that in the MENA region an average per capita health expenditure of PPP $546 translates into an average healthy life expectancy of about 61 years, while other countries can achieve a healthy life expectancy of 69 years by spending the same amount (Figure 6.7, panel 1). The vertical distance between each

Figure 6.6. Wage Bill, Subsidies, and Social Spending (In percent of GDP, 2018 or latest available)

Figure 6.7. Efficiency Frontiers in Nonparametric Approach

Sources: IMF FAD Expenditure Assessment Tool; IMF World Economic Outlook database; and IMF staff calculations.
Note: AE = advanced economy; EM = emerging market; GCC = Gulf Cooperation Council; LIC = low-income country; MENAP = Middle East, North Africa, Afghanistan, and Pakistan; MENAP EM = emerging markets in MENAP; MENAP LIC = low-income countries in MENAP.

Sources: IMF FAD Expenditure Assessment Tool (EAT); World Bank; and World Health Organization.
Note: GCC = Gulf Cooperation Council; MENAP = Middle East, North Africa, Afghanistan, and Pakistan; PPP = purchasing power parity.

1 Healthy life expectancy is a measure of health expectancy that applies disability weights to health states to compute the equivalent number of years of life expected to be lived in full health.
country and the frontier produces “efficiency scores,” which are taken as a synthetic measure of inefficiency. Figure 6.8, which reports education efficiency scores from the benchmarking study by Herrera and Ouedraogo (2018), confirms that spending on education in the MENAP region is, on average, less efficient than in relevant global peers.

Most countries in the region substantially increased social spending in response to the COVID-19 crisis. Although country heterogeneity is substantial, the fiscal cost of responding to the pandemic has generally been significant—on average, above 2.5 percent of GDP—although somewhat smaller than in global peers, reflecting limited fiscal space (Figure 6.9). An important part of the response was to support health care spending, but at least half of the countries in the MENAP region also announced plans for targeted support to low-income and vulnerable households and Fiscal measures include above-the-line, on-budget measures in response to COVID-19 directly affecting the government budget balance or gross financing needs, including additional spending on health and social protection and foregone revenue from cutting tax rates on certain goods from taxes or postponing tax collections.
informal workers (mainly through cash transfers, often administered by utilizing mobile and digital payment technologies) (ILO 2020). While this meant to increase coverage (percent of eligible beneficiaries receiving assistance) and reach previously uncovered groups, adequacy (percent of household pretransfer income) has barely changed, implying that the increase in cash transfers per eligible household was quite small (IMF 2021).

### CAN HIGHER LEVELS OF PUBLIC SOCIAL SPENDING IMPROVE INCLUSIVE GROWTH INDICATORS?

The extent to which social spending matters for socioeconomic outcomes remains a subject of discussion in the literature. Haile and Nino-Zarazua (2018) find a statistically significant impact of social spending on the inequality-adjusted HDI scores and on child mortality. Alper and Demiral (2016) find that social spending boosts growth, and Gupta, Verhoeven, and Tiongson (2003) find that health spending improves health outcomes. Baldacci and others (2008) conclude that education and health spending have a significant impact on education and health capital, but that improving governance and taming inflation could help to achieve the same outcomes. On the other hand, Filmer and Pritchett (1999) find no effect of public health spending on child mortality on account of inadequate institutional capacity and market failures. Likewise, Rajkumar and Swaroop (2008) show that public spending has virtually no impact on health and education outcomes in poorly governed countries, whereas they find a positive impact of public spending in countries with good governance. Most prior empirical work finds that social spending, especially when accompanied by good governance, is associated with better social outcomes and higher growth.

Recent IMF research explored whether a higher level of public social spending improves inclusive growth indicators. Mathai, Duenwald, and Guscina (2020) used a range of econometric methods applied to a global panel dataset of 191 countries during 1990–2017 to tackle the question of whether social spending matters for socioeconomic outcomes. They control for macroeconomic stability, trade openness, level of financial deepening, institutional quality, level of urbanization, fertility rates, and external and domestic conflict. For the health outcomes regression, they also used access to safe water and private health care expenditure as controls. To control for possible endogeneity, the paper used the previous year’s level of social spending, instrumental variable estimation, and the generalized method of moments for system of equations. This research finds:

- **There is a positive and statistically significant relationship between public social spending and socioeconomic outcomes.** A 10 percent higher (in PPP dollars per capita) social protection spending (if sustained for three years) can close 20–40 percent of the HDI gap between MENAP countries and their global comparators.

- **Greater public spending on education is associated with higher secondary-school enrollment and expected years of schooling** (a 1 percent increase in public spending on education is associated with a 0.3 percent increase in the secondary-school enrollment rate).

- **Greater public health expenditure is associated with greater life expectancy and lower infant mortality** (a 1 percent increase in public health spending is associated with a 0.1 percent reduction in infant mortality rate). Greater access to health care, proxied by the number of hospital beds, reduces age-adjusted mortality rates. More generally, while the private sector may be more efficient at delivering services for individual households, public health care spending seems to matter more for improving aggregate welfare indicators—lowering poverty rates, improving life expectancy, and reducing child mortality.

- **Public spending on social protection has a greater impact on the HDI than education and health spending.** This may reflect the fact that social protection schemes could have the most immediate effect of lifting people out of poverty, while health and education spending take more time to bear fruit. Government spending on education, especially on girls, matters not just for education outcomes, but for health outcomes as well.

- **The quality of institutions matters for translating social spending into socioeconomic outcomes** (Figure 6.10). For example, if MENAP countries could boost their survey-based governance indicators to those of their peers, a 10 percent increase in social protection spending would close 45–60 percent of the gap.

Important gains in socioeconomic outcomes could be achieved by improving efficiency of spending. Public debt in MENAP EMs and LICs was high even before the pandemic and rose to 90 percent of GDP on average in 2020 (IMF 2020). This means that most governments in the region will need to focus on increasing the efficiency of their social spending.

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6 Some countries may choose to spend more on social objectives precisely because their outcomes are poor, and if this reverse causality is not accounted for, the estimates can be biased.

7 Instrumental variables—variables correlated with spending but credibly unaffected by outcomes—used in the paper include the log of population (smaller countries suffer from diseconomies of scale and have to spend more), share of agriculture in GDP (agrarian societies have a weaker revenue base and tend to spend less), and ethnic tensions index (suboptimal allocation of public spending).
spending. Mathai, Duenwald, and Guscina (2020) use parametric techniques (a stochastic frontier analysis) to assess how socioeconomic indicators in the region would improve if spending efficiency were to increase while keeping everything else unchanged. They find that:

- *Bringing the efficiency of spending in MENAP LICs to the same average (higher) level as in EMs would greatly increase socioeconomic indicators.* For example, Mauritania could double the average years of schooling, while Afghanistan could achieve the same level of the HDI as Egypt (Figure 6.11, panel 2).

- *MENAP EMs could also achieve significant gains if they had the same average (higher) efficiency as AEs in the region.* For example, life expectancy at birth could increase by three years in Kuwait (Figure 6.11, panel 1).

Increasing the efficiency of social spending in the region may require improving the quality of institutions (Figure 6.12). Stronger transparency and accountability over the use of public resources minimizes wasteful spending and promotes efficiency. Mathai, Duenwald, and Guscina (2020) find evidence of a strong correlation between social spending efficiency and indicators of institutional quality, such as government effectiveness, the control of corruption, and the rule of law. They estimate a series of models that regress indicators of efficiency and indicators of institutional quality, such as government effectiveness, the control of corruption, and the rule of law. They find that:

- Public spending on education helps level the playing field between children from rich and poor households.

An increase in government spending on primary education of 1 percent of GDP could reduce the gap in enrollment rates between the highest and lowest quintiles by 2.8 pps, or about 30 percent of the average enrollment gap (IMF 2021). The World Bank Human Capital Project demonstrates the benefit of investing in the early years to improve human capital. Returns to investment in early childhood education are especially large because cognitive skills are developed early in life (Attanasio 2015).

- Likewise, government investment in primary health care achieves greater “bang for the buck.” Greater spending on primary health care enables early diagnosis and prevention of chronic illnesses and is a

8 A stochastic frontier analysis imposes a functional form on the input-output relationship (typically Cobb-Douglas) and an assumption about the distribution of the inefficiency term. This allows one to distinguish between inefficiency and statistical noise (See Mathai, Duenwald, and Guscina 2020, Annex 5).

9 This result is consistent with Rajkumar and Swaroop 2008; Albino-War and others 2014; and IMF 2018.
Improving Human Capital in the MENAP Region through Adequate and Efficient Social Spending

Figure 6.11. Socioeconomic Outcomes under Higher Efficiency in Selected MENAP Countries (2018 or latest value available)

Source: Mathai, Duenwald, and Guscina (2020).
Note: These figures use International Organization for Standardization (ISO) country codes. AE = advanced economy; EM = emerging market.

Figure 6.12. Social Spending Efficiency and Institutional Quality (2018 or latest value available)

Sources: Herrera and Ouedraogo (2018); World Governance Indicators; and IMF staff calculations.
Note: DEA = data envelopment analysis; MENAP = Middle East, North Africa, Afghanistan, and Pakistan. DEA efficiency scores from Herrera and Ouedraogo (2018) range from 0 to 100, where 100 represent the greatest efficiency.
CONCLUSIONS

This chapter highlights the importance of increasing both the size and efficiency of social spending to achieve more inclusive growth in the MENAP region. Despite impressive improvements in socioeconomic indicators over the last few decades, countries in the region still generally lag their global income peers in socioeconomic outcomes. Although this reflects a number of factors (including the high incidence of conflict and fragility in the region), lower levels of public spending on health, education, and social protection, as well as the relative inefficiency of such spending, also play a role.

The current crisis has further underscored the importance of social spending. The COVID-19 pandemic illustrated better survivability for people without chronic conditions and underscored the importance of preventive care, including vaccinations (Andrews and others 2021; IMF 2021). The COVID-19 crisis has prompted many governments to come up with innovative and efficient solutions in administering social protection. While, as noted earlier, many governments significantly increased coverage in the wake of the COVID-19 crisis, others could not afford a significant increase in individual payment amounts, due to fiscal space constraints. In efforts to shelter the most vulnerable from the economic fallout of the crisis, Egypt, Mauritania, and Pakistan targeted financial support to vulnerable women through broader social assistance schemes, while Algeria gave priority for exceptional leave to pregnant women and women raising children (Gentilini and others 2020). Jordan has used mobile wallets to transmit transfers to recipients. Many countries have allowed customers to open bank accounts via a mobile app, which could then be used to receive government cash transfers and make purchases. Morocco has been able to administer cash transfers by reaching informal workers using mobile and digital payment technologies. These new technologies promise to provide new ways for countries in the region to deliver social assistance to its intended recipients.

more efficient way to spend fiscal resources, especially when compared to costly subsidies for medical treatments abroad or emergency care (Tichenor and Sridhar 2017; Mathai, Duenwald, and Guscina 2020). Investing in the human resources for primary health care will also offer a gender dividend, given that many primary health care workers in the region tend to be female. The ongoing COVID-19 pandemic illustrated better survivability for people without chronic conditions and underscored the importance of preventive care, including vaccinations (Andrews and others 2021; IMF 2021).

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CONCLUSIONS

This chapter highlights the importance of increasing both the size and efficiency of social spending to achieve more inclusive growth in the MENAP region. Despite impressive improvements in socioeconomic indicators over the last few decades, countries in the region still generally lag their global income peers in socioeconomic outcomes. Although this reflects a number of factors (including the high incidence of conflict and fragility in the region), lower levels of public spending on health, education, and social protection, as well as the relative inefficiency of such spending, also play a role.

The current crisis has further underscored the importance of social spending. The COVID-19 pandemic has brought to the fore the need for robust health care systems and frameworks for channeling targeted financial support to the vulnerable. Most countries in the region have quickly mobilized additional resources on health and social protection to deal with the unfolding pandemic. They have also demonstrated ingenuity at extending social safety nets through the utilization of digital payment technologies.

Prioritization of social spending will need to continue. While some COVID-19-related spending will likely be scaled back once the crisis abates, the need for adequate social spending more generally remains. Our estimates suggest that increases in social spending would result in sizable improvements in outcomes. Sustaining—and potentially increasing—education spending is also important to mitigate the impact of the crisis on learning outcomes, especially for children most at risk of being left behind. Scaling up public health diagnostic and care capabilities, especially in access to preventive care, including vaccinations, would help
improve health outcomes and, to the extent that low infection rates prevent lockdowns, aid in economic recovery.

Efforts to create fiscal space for social spending are essential. Given the region’s gaps with peers in socioeconomic outcomes, there is a need in many countries to create more fiscal space—including through budget reprioritization and enhanced revenue mobilization—to permit increased allocations for social spending while ensuring fiscal sustainability. Before the current crisis, many countries in the region had already started to take measures to create fiscal space for social spending, including by undertaking fiscal reforms together with strengthening targeted outlays on social safety nets (Egypt, Tunisia, Jordan, Pakistan, Oman, Saudi Arabia), mobilizing and diversifying revenues (Bahrain, Morocco, Oman, Saudi Arabia, United Arab Emirates), strengthening tax administration, and rationalizing tax exemptions (Djibouti, Morocco). These efforts will need to continue following the crisis.

Greater efforts are needed to boost social spending efficiency. Given the competing priorities for limited public resources, social spending should be used efficiently and targeted appropriately. This includes both countries that are able to generate fiscal space and countries that face a fixed spending envelope so that each dollar spent has a larger impact on socioeconomic outcomes. Efficiency can be raised by strengthening institutions, improving governance, and controlling corruption. Innovative approaches adopted by governments during the COVID-19 crisis in administering social protection programs should continue to fully capitalize on the benefits that digital solutions can offer in terms of spending efficiency and inclusion. Introducing social registries would allow governments to identify eligible individuals and quickly scale up assistance in cases of emergencies. Efforts to promote financial deepening and inclusion would also help strengthen spending efficiency, including by helping households withstand crises, simplifying payment delivery, and reducing opportunities for corruption.

Improving outcomes would also require identifying existing gaps that impede access to social services. This includes gender gaps that hinder access to education and health care and institutional factors that keep vulnerable groups outside the reach of formal social safety nets. It would involve redesigning educational curricula and reforming vocational training to prepare the MENA region’s youth for in-demand careers. It would also call for increased investments in primary health care, as early diagnosis and prevention of chronic illnesses is the least costly and most efficient way to improve health outcomes.

REFERENCES


Financial Inclusion

Anta Ndoye • Adolfo Barajas

INTRODUCTION

Financial inclusion, defined as the access to and use of formal financial services, is taking higher policy priority in many countries across the Middle East and North Africa (MENA) region as they face formidable challenges to achieving stronger and more inclusive growth and a more vibrant private sector. As stated in the 2018 Opportunity for All paper (Purfield and others 2018) and in Chapter 1 of this book, financial inclusion of both households and small and medium enterprises (SMEs) in the MENA region lags that of other regions. The percentage of adults with an account in a formal financial institution—commonly referred to as the share of the “banked population”—is similar to that of the Caucasus and Central Asia (CCA) region but lower than in other regions, with the exception of sub-Saharan Africa (SSA). The average share of SMEs in total bank lending in MENA countries is only about 9 percent, the lowest in the world.

This chapter highlights the macroeconomic benefits of increasing financial inclusion in the MENA region, both in terms of growth and job creation. It also identifies the factors that can facilitate financial inclusion in the region and offers policy recommendations to expand financial inclusion.

The chapter is organized as follows: the first section presents the state of financial inclusion in the MENA region. The second section discusses the macroeconomic benefits from increasing access to finance. The third section builds on recent empirical analyses (Barajas and others 2020; Fouejeu, Ndoye, and Sydorenko 2020) to identify key policies to increase access to and use of finance. The final section reviews the role of fintech and existing efforts in the MENA region to support financial inclusion.

THE STATE OF FINANCIAL INCLUSION IN THE MENA REGION

Households

Based on the most recent data from the Global Findex Survey, in MENA countries the share of the banked population stood at 43 percent in 2017, compared with 52 percent for countries in Latin America and the Caribbean (LAC), 53 percent for Emerging and Developing Asia (EDA) countries, and 68 percent for Emerging and Developing Europe (EDE) countries (Figure 7.1, panel 1). On the other hand, this share is similar to that of CCA countries, and substantially greater than the 30 percent level registered in SSA countries.

A similar pattern is visible for the percentage of adults who have either borrowed from a formal financial institution or who have used a credit card: at 14 percent, this is also well below the levels of LAC and EDE, while comparable to CCA and EDA and above that of SSA countries (Figure 7.1, panel 1). Furthermore, while about half of adult men are banked in MENA countries, only 37 percent of women are (Figure 7.1, panel 2). This divergence, of about 14 percentage points, is double the world average.

1 Shant Arzoumanian provided outstanding research assistance.
2 The Middle East and North Africa region refers to the following countries: Algeria, Afghanistan, Bahrain, Djibouti, Egypt, Iraq, Islamic Republic of Iran, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Qatar, Saudi Arabia, Sudan, Somalia, Syria, Tunisia, the United Arab Emirates, West Bank and Gaza, and Yemen.
3 The Global Findex is a worldwide survey of the use of financial services covering over 150,000 adults across more than 140 countries. So far, there have been three rounds of the survey: in 2011, 2014, and 2017. See Demirgüç-Kunt and others (2018) for details.
There are also stark differences between two groups of countries within the MENA region. The high-income MENA countries have levels of account ownership and borrowing—77 and 33 percent, respectively—that exceed those in EDE, while in the other MENA countries, account ownership and borrowing are lower than in all regions except SSA. However, it is the high-income group that tends to display greater divergences in account holding according to age, income, work force participation and, particularly, level of education. In high-income MENA countries, an adult with at least a secondary education is 28 percentage points more likely to be banked than one with at most a primary education, compared to a 14 percentage point divergence in other MENA countries, and 23 points for the world as a whole, (Figure 7.1, panel 2).

In recent years, MENA countries have shown progress in boosting account ownership but not so in use of credit by households. Between 2011 and 2017, account ownership increased by an average of 9 percentage points for MENA countries, while credit by households only increased in the high-income MENA countries (Figure 7.2, panel 1). The reasons for being “unbanked” largely mirror those in the rest of the world: the most common responses in the Global Findex Survey referred to not having sufficient funds (65 percent), to services being too expensive (28 percent), and to other family members having an account (26 percent), as in the rest of the world (Figure 7.2, panel 2).

Small and Medium Enterprises

SMEs (firms with fewer than 100 employees) represent about 97 percent of all registered companies in the MENA region and employ more than half of the total labor force, broadly in line with the world averages (Figure 7.3). A relatively large share of SMEs in the region are in the informal sector, creating a barrier for accessing formal credit channels.

The MENA region lags other regions in terms of SME access to financing through the banking system. According
data set that covers a range of business environment topics, including access to finance. Coverage is available for both large firms and SMEs, and the survey is done about every four years in each country. The SME financial inclusion index is constructed from data on (1) access to finance: percentage of SMEs with a bank loan or line of credit, percentage of SMEs with a checking/savings account; and (2) usage of finance: percentage of SMEs using banks to finance their investments, percentage of SMEs using banks to finance working capital, proportion of SMEs’ investments financed by banks, and proportion of SMEs’ working capital financed by banks. This multidimensional data from the WBES is then reduced into a summary index using the following steps: (1) normalization of variables; (2) aggregation of normalized variables into subindices by principal component analysis, using the first component; and (3) aggregation of the subindices into
to the IMF’s Financial Access Survey, the average share of SMEs’ bank lending relative to total bank lending in the MENA region is only about 9 percent, the lowest in the world (Figure 7.4, panel 1). However, there are some differences between the countries in the region. The share of SMEs’ bank lending is as low as 1.9 percent in Bahrain compared to 18 percent in Morocco (Figure 7.4, panel 2). It has also stagnated over the last 15 years in the MENA region (Figure 7.4, panel 3).

We also use firm-level data from the World Bank Enterprise Survey (WBES) (Foujeu and others 2020) to construct a composite index that captures both access and usage of financial services by SMEs. The WBES is a firm-level dataset that covers a range of business environment topics, including access to finance. Coverage is available for both large firms and SMEs, and the survey is done about every four years in each country. The SME financial inclusion index is constructed from data on (1) access to finance: percentage of SMEs with a bank loan or line of credit, percentage of SMEs with a checking/savings account; and (2) usage of finance: percentage of SMEs using banks to finance their investments, percentage of SMEs using banks to finance working capital, proportion of SMEs’ investments financed by banks, and proportion of SMEs’ working capital financed by banks. This multidimensional data from the WBES is then reduced into a summary index using the following steps: (1) normalization of variables; (2) aggregation of normalized variables into subindices by principal component analysis, using the first component; and (3) aggregation of the subindices into

The Financial Access Survey is a survey of providers of formal financial services spanning member countries of the IMF.
Financial Inclusion

1. SMEs Share in Total Number of Firms (Percent)

2. SMEs Share in Total Number of Firms (Percent)

3. Small Firms Share in Total Employment (Percent)

4. Medium Firms Share in Total Employment (Percent)

Note: CCA = Caucasus and Central Asia; EDA = Emerging and Developing Asia; EDE = Emerging and Developing Europe; EMDE = emerging market and developing economies; LAC = Latin America and the Caribbean; MENA = Middle East and North Africa; SMEs = small and medium enterprises; SSA = sub-Saharan Africa. The figure uses International Organization for Standardization (ISO) country codes.

Figure 7.3. Importance of Small and Medium Enterprises

the final index (see Foujeuie, Ndoye, and Sydorenko 2020 for further details on the methodology).

We find that the MENA countries also lag the rest of the world, based on this composite measure of SME financial inclusion (Figure 7.4, panel 4). Within the MENA region, fragile states such as Afghanistan, Yemen, and Iraq have the lowest level of SME financial inclusion, while emerging market countries such as Tunisia and Lebanon have the highest levels. However, unlike for household financial inclusion, there is no clear divide between high-income countries and other countries. In fact, Gulf Cooperation Council countries, which have the highest income, also have the lowest share of SME bank lending relative to total bank lending in the MENA region.

Financial Development, Depth, and Inclusion in the MENA Region

A rich literature has found that financial activity provides benefits to the macroeconomy through its key functions: mobilizing savings; producing information; allocating capital to productive activities; monitoring investments and exerting corporate control; facilitating trading, diversification, and management of risk; and easing the exchange of goods and services (Levine 2005). Financial development, therefore, can be thought of as the process through which the ability for the system to undertake these functions evolves and is improved over time. Empirical studies of financial development have longed relied on indicators of financial depth—for example, the ratio of banking system credit to the private sector—to approximate at least some of the functions being carried out. Depth indicators generally track the quantity of funds being intermediated in the economy, and therefore are reasonable but partial measures of financial development. Financial inclusion measures provide an additional dimension; while quantity undoubtedly matters, how broadly those funds are disseminated to the population of households or firms should also matter. Thus, depth and inclusion are essentially dimensions of the broader process of financial development.

One would expect a positive relationship between financial depth and financial inclusion; countries whose financial systems are deeper would also be more likely to reach broader segments of the population with financial services such as bank accounts for transacting and saving, and loans to finance consumption and investment.

This is confirmed in Figure 7.5, where we show scatter plots of the standard measure of financial depth, the ratio of bank credit to the private sector to GDP, on the horizontal axis, with several measures of financial inclusion on the vertical axis: (1) the percentage of adults who have an account in a formal financial institution, (2) the share of
those who have borrowed from a formal financial institution or used a credit card in the last year, (3) the index of SME financial inclusion, and (4) the share of outstanding loans to SMEs as a share of total outstanding commercial bank loans. We include 146 countries for 2017 or the latest available observation for the respective financial depth or inclusion measure.

We also find that the relationship between financial depth and inclusion is not perfect; in some countries, the financial system mobilizes large amounts of funds relative to the size of the economy but does not distribute them as broadly to the population or to SMEs as in countries with more shallow systems. Conversely, other countries overperform, providing broader financial inclusion than would be expected from their level of financial depth. In short, there can be substantial variation in financial inclusion between countries of similar financial depth.

Our results show that in the MENA region, there is again a stark contrast in household financial inclusion between the high-income countries (shown as red dots in Figure 7.5) and the rest of the region (blue dots). The former have both deeper financial systems and greater financial inclusion (as measured by the share of account holders), in fact, greater than predicted by financial depth. However, the other countries in the MENA region have not only financial depth and inclusion below world averages, but also lower inclusion than what would have been predicted by their level of financial depth. In short, there can be substantial variation in financial inclusion between countries of similar financial depth.

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Financial Inclusion and Its Structural Determinants: Is There a Gap?

It has been recognized that certain structural and slow-moving factors, such as income level, geographical size, population and its density, and age-dependency ratios, play a role in determining how costly it is for a banking system to provide services to the economy and, therefore, how financially developed that country is likely to be (Barajas and others 2013). Thus, a structural benchmark can be defined conceptually as the level of financial development that would be expected for a country at a given time for its observed structural characteristics. Comparing its observed level with its structural benchmark would then show whether the country is under- or overperforming relative to similar countries. Feyen, Kibuuka, and Sourrouille (2019) have operationalized the structural benchmark concept, using quantile regression techniques to estimate the expected level of a certain indicator of financial development—including depth and inclusion—given a country’s structural characteristics.

Figure 7.6 summarizes the actual vs. benchmark comparison for the share of account holders (Figure 7.6, panel 1) and a measure of access to financial services, the number of bank branches per 100,000 adults (Figure 7.6, panel 2). Of the 18 MENA countries represented, 12 are underperforming relative to their structural benchmarks. Certain low-income countries, such as Djibouti, Sudan, and Yemen, underperform substantially even with respect to their relatively low structural benchmarks. Some middle-income countries, such as Lebanon, Morocco, and Tunisia, also underperform, and some high-income countries with relatively high levels of inclusion, such as Kuwait and Qatar, also are seen to underperform. On the other hand, Iran again stands out as an overperformer.

These benchmarking results also indicate that MENA countries have been comparatively more successful in providing access to services via commercial bank branches than in boosting account holding. Iran, Morocco, and Tunisia are particularly successful in providing an extensive branch network. However, for the latter two countries, this has not translated into corresponding success in promoting the use of accounts in the financial system.

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3 The share of account holding is the only household-related financial inclusion indicator that has been benchmarked in Finstats. Bank branches per 100,000 adults is obtained from the Financial Access Survey.
MACROECONOMIC BENEFITS FROM INCREASING FINANCIAL INCLUSION

Financial Inclusion, Growth, and Job Creation

There is an extensive literature examining the nexus between financial depth and long-term growth, as well as the beneficial economywide impacts of financial deepening for capital accumulation, productivity, poverty reduction, and lower income inequality. However, studies of the macroeconomic implications of financial inclusion are more recent and limited, in part because of the data limitations.

Sahay and others (2015) use panel data regressions to analyze the effects of both financial inclusion and depth on medium-term growth, and show that financial inclusion, as measured by the coverage of automated teller machines (ATMs) per 100,000 adults or the percentage of firms identifying finance as a major constraint, has a measurable impact above and beyond the effect of financial depth. Applying their estimated coefficients, one can compute an estimated growth loss from subpar financial depth and from insufficient financial inclusion for MENA countries (Table 7.1). For high-income MENA countries, the growth costs are

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6 See Levine (2005); Popov (2018); Beck, Demirgüç-Kunt, and Levine (2007); and Zhang and Ben Naceur (2019) for reviews of this literature.
## TABLE 7.1.
Estimated Growth Costs of Financial Underdevelopment (Private Credit-GDP) and Low Financial Inclusion (ATMs per 100,000 adults)

<table>
<thead>
<tr>
<th>Benchmarked MENA Countries</th>
<th>Year</th>
<th>Private Credit-GDP</th>
<th>ATMs per 100,000 Adults</th>
<th>Estimated Growth Costs from:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Observed</td>
<td>Benchmark</td>
<td>Observed</td>
</tr>
<tr>
<td>High-Income</td>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>Bahrain</td>
<td>2015</td>
<td>0.714</td>
<td>0.740</td>
<td>81.07</td>
</tr>
<tr>
<td>Kuwait</td>
<td>2017</td>
<td>0.971</td>
<td>0.532</td>
<td>35.13</td>
</tr>
<tr>
<td>Oman</td>
<td>2017</td>
<td>0.734</td>
<td>0.470</td>
<td>54.84</td>
</tr>
<tr>
<td>Qatar</td>
<td>2017</td>
<td>0.747</td>
<td>0.752</td>
<td>35.13</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>2017</td>
<td>0.543</td>
<td>0.474</td>
<td>73.34</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>2017</td>
<td>0.785</td>
<td>0.740</td>
<td>60.91</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Algeria</td>
<td>2017</td>
<td>0.232</td>
<td>0.358</td>
<td>9.64</td>
</tr>
<tr>
<td>Djibouti</td>
<td>2017</td>
<td>0.271</td>
<td>0.287</td>
<td>12.33</td>
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<tr>
<td>Egypt, Arab Republic</td>
<td>2017</td>
<td>0.287</td>
<td>0.285</td>
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<tr>
<td>Iran, Islamic Republic</td>
<td>2016</td>
<td>0.608</td>
<td>0.482</td>
<td>88.66</td>
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<tr>
<td>Jordan</td>
<td>2017</td>
<td>0.762</td>
<td>0.750</td>
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<tr>
<td>Lebanon</td>
<td>2017</td>
<td>0.961</td>
<td>0.091</td>
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<tr>
<td>Libya</td>
<td>2017</td>
<td>0.297</td>
<td>0.355</td>
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<td>Mauritania</td>
<td>2017</td>
<td>0.027</td>
<td>0.215</td>
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<td>Morocco</td>
<td>2017</td>
<td>0.618</td>
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<td>Sudan</td>
<td>2017</td>
<td>0.075</td>
<td>0.193</td>
<td>6.42</td>
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<tr>
<td>Tunisia</td>
<td>2017</td>
<td>0.766</td>
<td>0.426</td>
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<td>Non-Benchmarked MENA Countries</td>
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<tr>
<td>Afghanistan</td>
<td>2017</td>
<td>0.034</td>
<td>1.64</td>
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<tr>
<td>Iraq</td>
<td>2017</td>
<td>0.090</td>
<td>4.16</td>
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<td>Syrian Arab Republic</td>
<td>2010</td>
<td>0.197</td>
<td>48.72</td>
<td>0.001</td>
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<tr>
<td>World median</td>
<td>2017</td>
<td>0.43</td>
<td>40.73</td>
<td></td>
</tr>
</tbody>
</table>

Sources: Finstats 2019, Global Financial Development Database; and authors’ calculations.
Note: Regression coefficients taken from Sahay and others (2015), corresponding to the third column of the Generalized Method of Moments (GMM) panel data regressions reported in their Annex II, which are used to illustrate the effect of financial depth and financial inclusion on long-term growth in the first panel of their Figure 5. This table shows the growth costs of MENA countries arising from the gap between observed financial depth (the private credit-GDP ratio, Column 1) and the structural benchmark as estimated by Feyen and others (2019) (Column 2), the gap between observed financial inclusion (ATMs per 100,000 adults, Column 3) and the world median, and the interaction between the two. Growth costs are expressed in terms of per capita annual real GDP growth. For unbenchmarkled countries, the growth costs are calculated with respect to the world median of 0.43. ATMs = automated teller machines; MENA = Middle East and North Africa.
mostly negative, due to financial depth being either very close to or above the structural benchmark, and to the measure of financial inclusion being above the global median, with the exception of Oman. For the rest of the MENA countries, growth costs range from negative values (Iran and Lebanon), to small (Jordan, Morocco, and Tunisia), to as large as 1.4–1.6 percent per year (Algeria, Djibouti, Mauritania, and Sudan), which over a 10-year period could accumulate to losses of up to 18 percent in per capita real GDP.7

For SMEs, Blancher and others (2019) show that closing the financial inclusion gap with respect to the average for emerging market and developing economies (EMDEs) would also increase economic growth. Applying their estimated coefficients, we compute growth costs in MENA countries from SME access to finance falling below the EMDE average (Figure 7.7). These range from close to zero (Morocco, Jordan, and Djibouti), to small (Lebanon, West Bank and Gaza, and Sudan), to as large as 2–3 percentage points (Afghanistan, Yemen, and Iraq).

SMEs also play a key role in driving employment, especially in developing economies (Kumar 2017). Ayyagari, Demirgüç-Kunt, and Maksimovic (2014) find that SMEs account for nearly half of the workforce in the average country and that small firms (fewer than 20 employees) are the highest contributors to employment growth.

In the MENA region, firm-level regressions analyses (Ghassibe, Appendino, and Mahmoudi 2019) suggest that giving firms access to formal financing leads to an increase of 1 percentage point in their annual employment growth, in line with findings from the literature. These estimated gains are much larger for SMEs (1.3 percentage points) than for large firms (0.8 percentage point). Within SMEs, employment gains are largest for small firms (1.7 percentage points), which are the most credit constrained. Applying estimates from Ghassibe, Appendino, and Mahmoudi, we found that raising SME financial inclusion to the EMDE average could also help increase employment by about 6 million jobs by 2025 (Figure 7.8).8

### POLICIES TO EXPAND ACCESS TO FINANCE FOR HOUSEHOLDS AND FIRMS

#### Households

As reviewed in Barajas and others (2020), empirical studies have shown that certain policies at the economy or financial regulatory level can increase financial inclusion of households, including:

- Relaxing certain restrictions on banking activities, requiring greater transparency of financial institutions, taking actions to increase trust in financial institutions, including the establishment of explicit deposit insurance schemes, reducing government ownership of banks, and encouraging the entry of foreign institutions.
- Providing free or low-cost basic accounts without minimum balance requirements to address the issue of high cost and/or perceived income insufficiency to open formal accounts, cited in particular by MENA respondents to the Findex survey.

In addition, channeling of government payments to employees, pensioners, or beneficiaries of government programs directly into a bank account rather than in cash. Although coverage is relatively limited, Findex data indicate that some MENA countries have shown noticeable progress in transferring government payments directly into accounts and, to a lesser extent, into mobile phones (Figure 7.9).9

There is also evidence that financial literacy is positively correlated with individuals’ use of financial services and is

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7 A word of caution: these estimates rely on one measure of access to financial services—partly due to the time series requirements of the regressions—which may not adequately reflect the full picture of financial inclusion in a given country. Thus, while the precise estimated values should not be taken literally, this exercise reveals that deficiencies in financial inclusion in the MENA region could be a substantial factor limiting long-term economic growth.

8 Assuming that SMEs represent about half of total employment in the MENA region.

9 Some more recent progress may not be reflected in the 2017 Findex data. For example, there are indications that direct public and private sector payments into accounts have been expanding in Iraq, reaching about one-sixth of the population as of 2019 (Cornish 2019).
Total Employment in the MENA Region, 2013-27
(Million employed people)

Sources: International Labour Organization; and IMF staff estimates.
Note: SME = small and medium enterprises; MENA = Middle East and North Africa.

Figure 7.8. SME Financial Inclusion and Employment

1. Direct Government Payments
(2017 or latest available, percentage of recipients)

2. Direct Government Payments into Accounts
(2017 or latest available, percentage of recipients)

3. Direct Government Payments into Mobile Phones
(2017 or latest available, percentage of recipients)

4. Government Wages
(2017 or latest available, percentage of recipients)

Sources: Global Findex; and authors’ calculations.
Note: MENA = Middle East and North Africa. The figure uses International Organization for Standardization (ISO) country codes.
1The figure shows the share of recipients that have received (1) public sector pensions into an account, (2) government transfers into an account, (3) public sector pensions into a mobile phone, and (4) government transfers into a mobile phone.
2The figure shows adults receiving government pensions into an account on the horizontal axis and adults receiving government transfers into an account on the vertical axis, both expressed as a percentage of total recipients. MENA countries and averages are shown in blue, other countries in orange, and the world averages in green.
3The figure shows adults receiving government pensions into a mobile phone on the horizontal axis and adults receiving government transfers into a mobile phone on the vertical axis, both expressed as a percentage of total recipients. MENA countries and averages are shown in blue, other jurisdictions in orange, and the world averages in green.
4The figure shows adults receiving government wages into an account on the horizontal axis and adults receiving government wages into a mobile phone on the vertical axis, both expressed as a percentage of total recipients. MENA countries and averages are shown in blue, other jurisdictions in orange, and the world averages in green.

Figure 7.9. Government Payments into Accounts or Mobile Phones
also correlated with income and education levels (Lusardi and Mitchell 2011). For MENA countries, a recent study by Lyons and Kass-Hanna (2019) shows that, in addition to the effects of other socioeconomic factors such as better financial and technological infrastructure, greater political stability, and stronger legal rights, countries with higher financial literacy tended to be more financially inclusive. The study also found that the more-vulnerable groups—youth, women, and the poor—were significantly more responsive to the factors identified as boosting financial inclusion, including financial education.

**Small and Medium Enterprises**

Blancher and others (2019) and Fouejieu, Ndoye, and Sydorenko (2020) examined the relationships between a large set of macroeconomic, financial, and institutional factors and SME financial inclusion. The following macro-financial and institutional factors were found to play a significant role in facilitating access to credit by SMEs, with factors such as economic competition and credit information among the main areas for economic reform that would reduce the SME financial inclusion gap between the MENA region and the best-performing countries.

- **Price stability has a positive impact on SME access to financing.** Low inflation is a key signal of macroeconomic stability, associated with lower risk perception and thus greater demand for deposits and credit from formal financial institutions.
- **Greater competition among banks is found to increase access to financing for SMEs while lower asset quality undermines it.** The MENA region tends to have relatively high levels of banking concentration (Figure 7.10), which are related to weak competition and often

![Figure 7.10. Banking Sector Characteristics](Image)
associated with higher interest rate margins and bank profitability, which may discourage lending to smaller firms. The MENA emerging and low-income countries tend to have weaker asset quality, which is found to undermine access to finance for SMEs (Figure 7.10).

- Improved quality and availability of credit information can lead to large benefits in terms of financial inclusion, particularly for SMEs but also for households. In countries where collateral requirements are very high, such as Yemen and Tunisia, better credit information could help relax such constraints and unlock SME access to financing (Figure 7.11).

- Sound financial regulatory and supervisory frameworks are critical in order to monitor and address potential emerging risks and to support financial deepening and inclusion. Fouejieu, Ndoye, and Sydorenko (2020) found that financial supervisory capacity effectively contributes to SME financial inclusion, especially in the MENA region.

THE ROLE OF FINTECH AND GOVERNMENT INTERVENTIONS IN FINANCIAL INCLUSION

Fintech

Fintech is nascent in the MENA region, with its development accelerating in recent years (Lukonga 2018). The United Arab Emirates, Lebanon, Jordan, and Egypt host the majority of the MENA fintech startups and have established large fintech accelerators.11 There are also encouraging signs on the proliferation of digital payments, as illustrated by the populations’ use of mobile money accounts. At 10 percent on average, according to Findex data, it is further along in the MENA region than the 5–8 percent observed in LAC, EDA, CCA, and EDE. However, it is well below the level of SSA countries, which have been worldwide leaders in this area, with an average of 25 percent of adults using these accounts.12

New technologies can help to overcome several constraints to access to credit for SMEs and households identified in the previous section: lack of credit information, weak bank competition and, more generally, the relatively high cost of servicing the financing needs of SMEs and households. Big data analytics and cloud computation facilitate the gathering and processing of large amounts of consumer credit performance and behavioral data. Registration and accounting information can be combined with geographical and socioeconomic information to generate real-time credit scores. Furthermore, new technologies can help lower regulatory compliance costs that can inhibit access to credit. Know Your Customer and Anti-Money Laundering/Combating the Financing of Terrorism procedures can, for example, be made more efficient by analyzing digitized client and partner transaction data, and writing contracts on distributed ledgers (Blancher and others 2019).

The COVID-19 pandemic led policymakers in many countries worldwide to make supplemental transfers to indi-

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11 A fintech accelerator is a program aiming to support startups that are focused on building products and services for the digital payments industry. Examples include Bahrain-based PayTabs and Jordan-based ProgressSoft and eFAWATEER.com, which provide digital payment solutions for banks and SMEs. United Arab Emirates-based Beehive and Eureeca, Lebanon-based Zoomaal, and Jordan-based Liwwa provide crowdfunding and peer-to-peer lending in the region.

12 See Suri (2017) for an overview of the global rise of mobile money.
viduals to compensate them for a loss of income due to mandated lockdowns and other negative shocks to economic activity. Some of these efforts were undertaken in MENA countries (Jordan, Egypt, and Morocco), with an emphasis on digital means and streamlined requirements for opening new accounts. Going forward, MENA governments and private financial institutions will increasingly grasp the potential benefits of setting up these payment channels, in terms of helping households and SMEs directly and serving as a catalyst for further financial inclusion.

However, Fintech also introduces new risks into credit activities. For example, online platforms collect large quantities of data, creating risks for both data privacy and cybersecurity. Concerns about consumer protection and fraud are elevated, and many lending platforms rely on short-term funding, which may create financial stability issues.

**Government Interventions**

MENA countries are relying increasingly on direct public intervention to expand access to finance for SMEs, including in response to the COVID-19 crisis.

Several countries in the region relied on partial credit guarantees to support SMEs (West Bank and Gaza, Tunisia, and Morocco). As reviewed in Barajas and others (2020), the worldwide experience with partial credit guarantees in supporting SME financial inclusion has been mixed, as there are risks of unintended consequences, including large contingent liabilities that are difficult to quantify ex ante, and of misallocation of resources (Zia 2008). Therefore, it is a significant challenge to design them in such a way as to minimize these risks. As argued by the World Bank (2015), success of a PCG scheme depends on the existence of a number of preconditions in the legal, accounting, and judicial environments of the country, and it even requires a minimum degree of financial development.

Development banks can potentially play a role in increasing SME finance, and in particular, as a counter Cyclical credit provider to SMEs that are temporarily unable to access market financing. Examples in the MENA region include Kuwait, Mauritania, Morocco, and Sudan. Traditionally, the literature has found that, while active government participation in the provision of financial services can potentially help to correct market distortions in the provision of financial services in general, and to SMEs specifically, it can create distortions of its own that run the risk of undermining its objectives (World Bank Group and World Federation of Development Financing Institutions 2018). In the MENA region, development banks have been found to underperform relative to their private counterparts, mainly because they have larger holdings of government securities, contain an employment mandate that drives higher costs, and tend to require larger loan loss provisions due to their weaker asset quality (Farazi and others 2011).

Interest rate caps have been widely used to lower the cost of credit and limit predatory lending. Examples in the region include Algeria, Lebanon, Morocco, Libya, and Tunisia (World Bank 2018). However, there is evidence that interest rate caps may lead to lower bank profitability and credit supply (for example, Ferrari, Masetti, and Ren 2018), especially for small and riskier borrowers.

**Financial Development and Inclusion Strategies**

A growing number of MENA countries (Jordan, Morocco, Djibouti) have introduced financial inclusion strategies in recent years. These can enable financial policymakers and stakeholders to take a holistic view of the financial development needs in their country and formulate balanced financial policies.

Melecky and Podpiera (2018) assessed financial sector strategies across countries and over time using a rating criterion proposed by Maimbo and Melecky (2014), on the basis of four categories of strategic objectives: financial development, systemic risk management, implementation arrangements, and policy trade-offs. They investigated how the quality of the strategies can affect financial sector outcomes, such as financial depth, inclusion, efficiency, and stability. They found that only a few high-quality strategies, such as those for Malaysia and Switzerland, can serve as role models for other countries in their efforts to deploy financial strategies effectively. They concluded that high-quality strategies should include adequate coordination across government agencies; efforts by the leading governmental agency (in many cases, the central bank) to consult with the private sector; and regulatory reforms to promote better information sharing, contract enforcement, and insolvency regimes.13

The international experience also suggests that policymakers should exercise caution in choosing the targets of their financial inclusion strategies. They should not assume, for example, that a rapid expansion of branches or ATMs or even accounts can automatically produce the desired macroeconomic benefits cited in this chapter. Similarly, policy efforts such as drives to open accounts can be successful in achieving this limited objective, but with questionable economic benefits. For example, experiments in Chile, Malawi, and Uganda led to rapid opening of accounts but little usage (Dupas and others 2018), and the massive campaign in India produced 222 million new accounts, but the majority of them remain inactive (Agarwal and others 2018).

**CONCLUSIONS**

The chapter documented key stylized facts and trends regarding financial inclusion in the MENA region. Despite some progress over time, both households and SMEs continue to lag in their use of financial services relative to other regions. Even though some financial systems mobilize an amount of funds that is large relative to the size of the economy, broader access to and usage of financial services is often

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13 Malaysia is an example where an SME agency was given strong coordination powers and was able to reach across jurisdictions to gain consensus on policy priorities.
lagging, suggesting a weak relationship between financial depth and financial inclusion in the region, and raising questions about the nature and efficiency of capital allocation in MENA countries, in line with the lack of private sector development and economic diversification in many of these economies. The chapter also used an existing benchmarking framework to establish to what extent the observed household financial inclusion levels in the region indicate an over- or underperformance relative to countries sharing similar structural characteristics. Except for high-income countries, most countries in the region exhibit significant gaps with respect to the structural benchmarks. This is a signal that policies would need to be improved to bring financial inclusion more in line with that of similar countries. Using the results of existing regression analyses relating medium-term growth to financial depth and financial inclusion, the chapter found that increasing financial inclusion for households and firms is associated with higher economic growth and greater job creation. In the MENA region, the potential benefits of increasing access to finance for households and SMEs are substantial: closing financial depth and household inclusion gaps could raise per capita real GDP by up to 18 percent over a decade and increasing SME financial inclusion for the MENA countries to the global average could boost annual economic growth and create about 6 million additional jobs by 2025.

This also suggests that MENA countries with large gaps—with respect to other regions or to structural benchmarks—could obtain substantial benefits from increasing financial inclusion. The key question then, is what is the best policy approach to achieve meaningful increases in financial inclusion?14

The empirical results suggest that a holistic approach is needed to address the main market frictions and other obstacles holding back financial inclusion. This approach would encompass a broad range of areas, such as institutional quality, macroeconomic stability, and adequate financial policy frameworks, as well as legal and regulatory conditions. In particular, policymakers should consider enhancing financial sector competition and credit information, and encourage the development of fintech activities. For increasing household financial inclusion, efforts at facilitating opening of basic accounts, channeling government payments directly into bank accounts, and enhancing trust in the financial system—including through targeted financial education programs—have proved effective. Broad strategies for financial development and inclusion can have an important impact as well, provided they are well-designed and are not limited to the achievement of a rigid and narrow numerical target for financial inclusion.

These policies are also likely to trigger a virtuous circle of greater financial inclusion and reduced informality, bringing about broader benefits to the economy. In contrast, partial policy approaches, such as strategies focusing solely on direct government interventions through state-owned financial institutions, credit guarantees, or interest rate caps, are unlikely to yield substantial benefits. Finally, the chapter described how the COVID-19 crisis spurred policymakers in MENA countries, as in the rest of the world, to enact policies to cushion SMEs and households from the negative economic impact of the pandemic, indirectly enhancing financial inclusion. For households, the recent government transfers into a variety of traditional and fintech accounts has provided a gateway into further use of financial services, and time will tell if this catalytic effect proves substantial or durable. For SMEs, initiatives aimed at increasing their access to credit have relied mostly on credit guarantees which, while effective in the short term in providing necessary funds during a crisis, should not be viewed as a desirable longer-term option for increasing SME financial inclusion, given the difficulties and unintended consequences that have been encountered by these schemes internationally.

REFERENCES


14 In the case of financial depth, Barajas and others (2013) identify main policy determinants of gaps with respect to structural benchmarks, which they group into three categories: market-enabling, market-developing, and market-harnessing policies. Many of the policies they found to be consistent with closing the depth gaps have also been identified elsewhere as contributing to financial inclusion, and are cited in this section as well.
CHAPTER 8

Moving from Aspiration to Action on Climate Adaptation

GARETH ANDERSON

INTRODUCTION

The Middle East, North Africa, Afghanistan, and Pakistan (MENAP) region is highly vulnerable to climate change. The region’s main climate stresses have increased in recent decades and are set to further intensify in the decades ahead: temperatures are projected to rise even higher; precipitation is expected to become even more volatile; and climate-related disasters are likely to hit more frequently and severely. The intensification of the region’s climate conditions is challenging people’s lives and livelihoods with greater land degradation (especially desertification and salinization), water stress, and rising sea levels. The human, physical, and economic impact of continued climate change threatens to deepen poverty and inequality in the region and could endanger social stability and peace.

This chapter, based on the IMF Departmental Paper “Feeling the Heat: Adapting to Climate Change in the Middle East and Central Asia” (Duenwald and others 2022), argues that strengthening capacity to proactively boost resilience to climate stresses is an urgent and critical priority for MENAP economies. Success in doing so will require adaptation policies to be integrated within broader climate strategies and supported by both domestic and external financing sources. Timely adaptation can help contain damage from climate change, maintain macroeconomic and financial stability, and support socioeconomic development and inclusive growth.

CLIMATE TRENDS

MENAP countries are already suffering from climate change, with many having already experienced higher temperatures, declining and more erratic precipitation, and more frequent and severe disasters in recent decades:

- **Higher temperatures.** Annual temperatures have increased by about 1.3°C on average in the MENAP region relative to the first half of the 20th century (Figure 8.1), outstripping increases in the rest of the world. The average temperature across countries in the region was 23°C in 2020, compared with an average of 19°C across countries in the rest of the world.
- **Declining precipitation.** Annual precipitation has, in general, been on a declining trend in the MENAP region for much of the past two decades, with precipitation in the most recent decade on average about 5 percent lower than in the first half of the 20th century (Figure 8.1). In addition, rainfall has generally become more erratic across the region.
- **Higher frequency and intensity of climate disasters.**
  - **Frequency.** The occurrence of climate disasters—discrete, impactful events caused by a climate hazard—has also risen over the past two decades. Episodes of extreme temperatures have become more numerous and changing rain patterns have resulted in more frequent excessive rain events. Recent decades have seen flash floods in the MENAP region’s arid/semiarid zones (for example, Egypt, Iraq, Morocco, and Tunisia).
  - **Intensity.** Climate hazards have also become more intense in MENAP countries over the past two decades. Warm spells have increased by almost 19 days relative to the previous two decades. Warm spells have increased by almost 19 days relative to the previous two decades.

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1 The MENAP region includes Afghanistan, Algeria, Bahrain, Djibouti, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Qatar, Pakistan, Saudi Arabia, Sudan, Syria, Tunisia, the United Arab Emirates, and Yemen.

2 A hazard is the potential occurrence of a natural or human-induced physical event or trend that may cause loss of life, injury, or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, ecosystems, and environmental resources (IPCC 2021). Examples of climate disasters include cyclones, droughts, floods, and severe winters.
Moving from Aspiration to Action on Climate Adaptation

In the MENAP region, decades of climate change have raised temperatures and lowered precipitation, exacerbating water stress and environmental degradation. High temperatures and drought have threatened the region’s highly populated coastal areas, particularly in Egypt, Djibouti, and the United Arab Emirates (UAE), and cities such as Manama, Doha, Kuwait City, and Alexandria.

Continued climate change is set to further intensify the MENAP region’s climate stresses in the coming decade. Even with significant cuts in global emissions, temperatures are projected to rise further, with particularly high temperatures in summertime. Average summertime temperatures could exceed 30°C in about 60 percent of MENAP countries by 2050 (Figure 8.3). In a higher emissions scenario, parts of the region could become uninhabitable by the end of the century (Lelieveld and others 2016). Drier seasons...

Sources: World Bank; and IMF staff calculations.
Note: LHS = left-hand scale; RHS = right-hand scale; RoW = rest of the world; MENAP = Middle East, North Africa, Afghanistan, and Pakistan. Solid lines show trends for the MENAP region and dashed lines show trends for the rest of the world.

Figure 8.1. MENAP Region: Climate Trends, 1951–2020
(Mean deviation of countries’ annual weather averages from their respective 1901–50 averages)

Sources: Emergency Events Database; World Bank, World Development Indicators; IMF World Economic Outlook database; and IMF staff calculations.
Note: MENAP = Middle East, North Africa, Afghanistan, and Pakistan; RoW = rest of the world; EMDE = emerging market and developing economies; SPEI = Standardized Precipitation-Evapotranspiration Index; WSDI = Warm Spell Duration Index. The WSDI captures the average number of days per year over a climatological interval that are part of a sequence of six or more days in which the projected daily maximum temperature exceeds the 90th percentile of daily maximum temperatures found in the reference period. The SPEI for a 12-month period uses the daily difference between precipitation and potential evapotranspiration to determine droughts.

Figure 8.2. Average Intensity of Extreme Climate Hazards
(WSDI in days, SPEI as index from -5 [worst] to 5)
The analysis shows that higher temperatures had an adverse impact on growth and employment, particularly in countries where temperatures were already high. Temperature shocks increased unemployment over many years (Figure 8.4, panel 1), and this pattern was common across male, female, and youth unemployment. For five of the hottest MENAP countries (Bahrain, Djibouti, Mauritania, Qatar, and the UAE), a temperature increase had a negative and significant impact on real GDP per capita both in the year of the shock and the following year (Figure 8.4, panel 2). Precipitation shocks, defined as a 100-millimeter increase in annual precipitation levels relative to the 20-year moving historical average, also increased unemployment, although the effect was more muted compared to temperature shocks. Temperature shocks also had differing impacts across sectors (Figure 8.5). While tourism employment initially remained unaffected, it declined in the medium term. There is also tentative evidence to suggest that agricultural employment declined in response to temperature shocks—though the effect was not statistically significant, perhaps reflecting the lack of coverage of the informal sector. In contrast, services employment increased over the medium term. Together, this analysis suggests that further temperature increases in the MENAP region could lead to sizable sectoral shifts in employment—for example, away from tourism and agriculture and into other service sector activities.

Climate disasters also had statistically significant and long-lasting effects on economic activity in MENAP countries. GDP per capita growth, on average, declined sharply in disaster years before subsequently bouncing back. Disasters can also affect current account dynamics (Figure 8.6). Estimates suggest that imports rose following climate disasters, supported by increased aid flows, while foreign direct investment declined sharply, further emphasizing how climate shocks had enduring effects.

IMPLICATIONS FOR THE MACROECONOMY

Climate-related policy challenges are macrocritical in MENAP countries. The experience of recent decades illustrates the profound effect that climate change can have on growth and prosperity. This section highlights an empirical analysis that shows changing climate patterns have had long-lasting effects on economies in the region.

The empirical approach used considers how past temperature and precipitation shocks and climate disasters have affected macroeconomic outcomes in the MENAP region over the past two decades. To assess the impact of temperature and precipitation shocks on macroeconomic variables, the local projection approach of Jordà (2005) is used, closely following the methodology of IMF (2017). To examine the impact of climate disasters, a panel vector autoregressive model with exogenous shocks is used.3

For full details of the empirical approaches, see Duenwald and others (2022).
Fragile and conflict-affected, low-income countries (such as Somalia, Sudan, and Afghanistan) have low resilience and have experienced higher losses. They are mostly located in degraded drylands, where their people live off rain-dependent subsistence farming and are highly vulnerable to climate shocks.

Given that past climate events have resulted in sizable human damage with broader macroeconomic consequences, coupled with the likelihood that future events could have a more severe impact on the region as climate stresses intensify, a lack of adequate adaptation to climate change could threaten:

- Inclusive growth and per capita incomes. Economic growth may be lower and more volatile because of damage to human capital and physical infrastructure. Increased temperatures would likely have an uneven impact across sectors, first affecting the rain-dependent agricultural sector with potential further
POLICY IMPLICATIONS

The humanitarian, social, and macroeconomic costs of climate change necessitate urgent and decisive adaptation action. While it is well-documented that the potential returns to investing in adaptation are significant—ranging as high as 100–1,000 percent—realizing the full benefits requires time, capacity building, and funding (IMF 2022; Halle-gatte, Rentschler, and Rozenberg 2019). Although actual policies will need to reflect individual country circumstances and challenges, this section highlights some common principles and priorities that could guide adaptation efforts in the MENAP region.

Frameworks for Developing Policies

As an overarching priority, climate change impacts and adaptation policies need to be mainstreamed and fully integrated into national economic strategies. Effective policymaking requires understanding the risks and costs associated with}


effects on manufacturing, trade, and tourism via demand and supply shocks.

- **Socioeconomic development, inequality, and political stability.** Preexisting social disparities could be aggravated, for example, by intensifying water stress or land fertility in areas that are already in crisis or have heightened social-political tensions. This could amplify conflicts and affect migration patterns across the region.

- **Macroeconomic stability.** Debt sustainability may be undermined, both directly through fiscal accounts and indirectly through lower growth. Current account dynamics could also be affected, through the impact on import demand and export potential, weighing on external sustainability.

- **Financial stability.** The soundness of insurance and financial institutions could be threatened by a deterioration of balance sheets, deposit withdrawals, nonperforming loans, and a reevaluation of assets used as collateral (IMF 2020a).

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1. Real GDP per Capita Growth
2. Current Account Balance
3. Foreign Direct Investment Inflows
4. Net Official Development Assistance

Sources: Emergency Events Database; IMF World Economic Outlook database; World Bank, World Development Indicators; IMF staff reports; and IMF staff calculations.

Note: MENAP = Middle East, North Africa, Afghanistan, and Pakistan. Dashed lines represent 90 percent confidence bands. The impulse response functions capture quite heterogenous post-disaster outcomes and policies, as evidenced by the width of the confidence bands. The number of included years and countries varies with data availability.

1The impulse response functions show the multiyear macro response to the shock of a disruptive year, defined as when the annual deaths plus 0.3 times affected persons exceed 0.01 percent of the population (Fomby, Ikeda, and Loayza 2009).

Figure 8.6. MENAP Region: Period-by-Period Response to Disruptive Climate Disaster Years
(Percentage points of GDP)
climate change and the potential benefits from adaptation policies. Policymakers should therefore develop macroeconomic frameworks that fully reflect climate risks; use cost-benefit analysis to design interventions that mitigate those risks and have a positive net present value; and, to implement the interventions, secure financing that is adequate and robust. Near-term macroeconomic forecasting and budget planning should consider climate shock scenarios, post-disaster financing needs, and risk-reduction strategies. At longer horizons, adaptation planning should also utilize robust scenario analyses grounded in climate science that take account of global mitigation efforts.

Developing a National Adaptation Plan (NAP) under the United Nations Framework Convention on Climate Change (UNFCCC) is one way of providing a structure for countries to identify information and administrative gaps, incorporate policies into a plan, and guide policy implementation and regular review. The NAP process involves four elements. To date, most MENAP countries have made progress on at least one element, and three full NAP documents have been produced (Kuwait, Sudan, and West Bank and Gaza). Some countries have instead formulated climate strategies outside of the NAP process. Saudi Arabia, for example, launched its “Green Initiative” in 2021 and refers to its specific adaptation strategy within its Nationally Determined Contribution submitted to the UNFCCC.

A prerequisite for developing frameworks that reflect climate risks is the availability of high-quality data. Without detailed and reliable data on the climate risks faced by households, firms, and financial institutions, it is difficult to make in-depth assessments of the potential payoffs of adaptation policies. Large data gaps are common in MENAP countries (Ferreira and others 2021), mainly reflecting a lack of forward-looking, granular, and verifiable data and disclosure standards. Closing these gaps would help to inform public interventions and facilitate greater private investment. Supported by regional and global partners, such as the Network for Greening the Financial System, policymakers should make the disclosure of climate risks mandatory. This would require harmonizing existing assessment methodologies and standardizing disclosure regimes as well as supervisory frameworks.

**Specific Areas of Focus**

Equipped with frameworks to assess climate risks and design interventions, policymakers in the region should consider:

- **Boosting public investment in resilient infrastructure.** In MENAP countries, the public sector is typically the main investor in infrastructure but has historically used ex-post measures for disaster relief, recovery, and reconstruction following climate shocks, rather than making proactive investments. Policymakers should reverse this focus and prioritize investments in adaptation that help contain significant human and material damages and limit the detrimental impact of climate change on the macroeconomy. Investing preemptively in resilient infrastructure can reduce the adverse impact of climate change on growth and employment, limit the need for stimulative fiscal policy, and improve debt dynamics. A model simulation for Morocco shows that adaptation investment can limit drought-related GDP losses and lead to a more favorable debt-to-GDP ratio in the medium-term relative to a standard investment mix. Adaptation investment for Morocco could also deliver higher returns prior to drought events, due to the higher economic dividends from investing in resilient irrigation projects (World Bank 2005). Efficient prioritization of public investments is critical to exploit complementarities and handle trade-offs. So-called “no-regret” measures—measures that are justified under all plausible future scenarios, including the absence of man-made climate change—could be prioritized. Examples from the region include the upgrade of the national water management system in Jordan and the promotion of drip irrigation schemes in Maghreb countries. Scaling up public investment also requires fiscal risks to be properly managed. This means ensuring the robustness of public investment management practices, public procurement, public-private-partnership frameworks, and central oversight in the Ministry of Finance (IMF 2022; Gerling 2017).

- **Increasing the role of the private sector.** Given the scale of adaptation needs and the urgency and potential payoffs of investments in resilient infrastructure, policymakers should encourage increased participation in adaptation investment by the private sector. Doing so requires removing market imperfections and policies that make private adaptation both insufficient and inefficient. Policymakers can help improve the environment for private investment through reviewing regulations; encouraging climate risk disclosures; disseminating business-relevant information on climate risks; and devising appropriate fiscal policies, such as tax breaks and subsidies, financing incentives, or public-private partnerships.

- **Adjusting inclusive growth and development agendas.** Labor market, sectoral, and regional policies should be devised to support those most vulnerable to climate change, for instance, by reducing the climate impact on jobs and livelihoods in coastal regions and supporting sectors like agriculture and tourism that could suffer because of changing climate conditions and rising sea levels.

- **Designing efficient and fair macroeconomic policies.** Public policies should aim at minimizing climate risks efficiently. In some cases, it may be too costly to

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4 The four elements are as follows: lay the groundwork and address gaps; preparatory elements; implementation strategies; and reporting, monitoring, and review.

5 The results of the model simulation are reported in Duenwald and others (2022) and are prepared by Giovanni Melina, Zamid Aligishiev, and Kubi Johnson.
eliminate all risks and adaptation investments may not have a positive net present value. In such cases, fiscal and financial sector policies should support those most vulnerable to the impacts of climate change. Social systems could be adjusted to include climate-dependent social transfers that activate when climate conditions exceed predefined thresholds, indexed cash transfers (for example, which neutralize the effects of food price spikes after adverse climate events), or subsidized insurance against natural hazards (either through government or donors).

**FINANCING**

Scaling up public and private investment in adaptation implies significant financing needs. At the global level, developing countries’ annual investment needs for adaptation is projected to be up to $300 billion in 2030 and up to $500 billion in 2050 (UNEP 2016). Relative to GDP, adaptation needs are likely to be larger in poor, small, and vulnerable countries. The IMF (2020) estimates that annual costs of improving resilience to floods, storms, and rising sea levels alone could be close to 2 percent of GDP for some MENAP countries (for example, Mauritania). Considering the additional need for investment to protect against droughts and heat waves, which are particularly severe in the region, total costs could be significantly higher than this. Pakistan’s overall adaptation needs, for example, were estimated in 2016 to be between $7–$14 billion per year out to 2050 (Government of Pakistan 2021), while Mauritania estimates its total financing needs for adaptation actions between 2021–2030 to be $10.6 billion (Islamic Republic of Mauritania 2021).

Boosting spending on adaptation will be challenging for many countries in the region, particularly given tight fiscal space in the aftermath of the COVID-19 pandemic. These countries need to create fiscal space through a mix of domestic policy reforms and more international support, leveraging various external financing options.

**Domestic Sources**

Adjusting fiscal policy to create space for greater adaptation spending is one possible source of domestic finance—for example, through reorienting spending away from less productive uses, widening tax bases and making them more equitable, tackling waste and corruption, and reforming loss-making, state-owned enterprises (IMF 2021). Two broad areas to focus on are:

- **Redirecting resources from energy (and other) subsidies.** Fuel subsidies in the MENAP region are rather generous (Figure 8.7), accounting for 4.6 percent of...
GDP in 2020, even after some initial energy price reform steps (for example, in Saudi Arabia).\textsuperscript{6,7,8} Removing such subsidies should be part of a broader energy sector reform that entails having well-targeted social transfer systems put in place first. Also, general—and thus mostly regressive—electricity and water subsidies could be scaled back in some countries (such as in Pakistan and Tunisia), accompanied by well-targeted cash transfers for the most vulnerable.

- **Mobilizing domestic revenue.** Mobilizing domestic (non-oil) revenues, particularly in areas where the region still lags comparators, is a key way of increasing fiscal space to increase adaptative investment for greater resilience. Boosting the efficiency of tax collection systems, streamlining exemptions, raising income tax rates, and introducing new taxes (for example, property taxes) would support this objective. Depending on country circumstances, carbon taxation could be considered to generate additional revenue. If pursued, taxing the production and uses of fossil fuels could raise significant revenue in many countries (Figure 8.8), depending on the tax rate applied, the volume of domestic carbon emissions, and the capacity of the tax administration. For instance, a tax of $25 per ton of carbon could collect over 4 percent of GDP in fiscal revenues in Iraq. This additional revenue would open fiscal space for a range of purposes (Marron and Morris 2016), including for compensating those vulnerable to the consequences of both the use of fossil fuels and policy measures to encourage a reduction in the use of fossil fuels.

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\textsuperscript{6} These subsidies are not necessarily annual budget allocations only, but also recapitalizations of loss-making SOEs.

\textsuperscript{7} The estimation of explicit subsidies includes subsidies for petroleum, natural gas, coal, and electricity.

\textsuperscript{8} The estimation of explicit subsidies reflects the difference between the price consumers pay for the use of energy including of fuel or electricity (retail price) and the cost of supplying it (supply cost). The supply cost is assumed to be equal to the export parity price, which is expected to be higher than the production cost.

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**Figure 8.8.** MENAP Region: Potential Carbon Tax Revenue, 2030 (Percent of GDP)

Sources: Country authorities; and IMF staff calculations.

Note: MENAP = Middle East, North Africa, Afghanistan, and Pakistan. The figure uses International Organization for Standardization (ISO) country codes. Estimations are based on a model calculation from the IMF Fiscal Affairs Department’s Carbon Pricing Assessment Tool.
Policies can also be designed to encourage greater private sector investment in adaptation. Households and companies face substantial adaptation pressures, particularly where public action is constrained by tight fiscal space and weak administrative capacity. Private adaptation efforts, however, are also constrained by limited financing opportunities. Three factors help explain why this is the case (Tall and others 2021): (1) a lack of data on country-level climate risks and vulnerabilities to guide investment decision-making, (2) limited clarity on government investment gaps to achieve adaptation goals, and (3) low perceived or actual returns on investment.

Countries can help to alleviate some of the constraints holding back private sector investment by improving planning and coordination between different stakeholders. This could facilitate better data and information sharing, specifically on the costs and benefits of various adaptation measures. Financial policies could also be designed to help reduce costs and improve the risk-return profile for private investment. Potential measures include blended finance, guarantees, subsidization, and credit enhancement.

External Sources

External financing for adaptation is available through multilateral and bilateral sources, as well as the private sector. However, the supply of finance from these sources to date has been relatively modest and uneven across countries.

Between 2009–19, MENAP countries received a total of $53 billion in climate financing from bilateral and multilateral sources, of which about 55 percent was from bilateral sources. However, only about $15 billion of this was solely for adaptation initiatives, while about $34 billion was for mitigation and $5 billion was for both adaptation and mitigation initiatives. Of the external finance for solely adaptation initiatives, almost half went to Pakistan, Morocco, and Tunisia (Figure 8.9).

Multilateral and bilateral financing have some specific characteristics in the MENAP region. Terms on multilateral financing have been predominantly nonconcessional, in contrast to bilateral financing, which has been fully concessional. Just under 60 percent of the multilateral finance provided for adaptation between 2009–19 (including joint mitigation initiatives) was nonconcessional. Complex project selection criteria for both bilateral and multilateral assistance can mean that in some cases financing is only available for countries with sufficiently high institutional capacity. This reflects a global pattern whereby the allocation of bilateral financing is not always related to a country’s climate vulnerability, but instead can reflect other factors like institutional capacity to apply, implement, and manage projects (Doshi and Garschagen 2020). This underscores the importance of capacity development initiatives in this area, as well as efforts by country authorities to create an enabling environment for attracting adaptation finance.

Green bonds offer an additional source of external private finance to help support climate change goals. Unlike traditional corporate and municipal bonds, green bonds are earmarked for specific climate and environmental projects. Before the COVID-19 pandemic, the green bond market had grown to over $257 billion worldwide since the first issuance in 2007. By the end of 2020, five MENAP countries had issued green bonds (Egypt, Lebanon, Morocco, Saudi Arabia, UAE; see IFC 2019, 2020, 2021), with Egypt in 2020 issuing the first sovereign green bond in the region.

However, like bilateral and multilateral financing sources, adaptation remains largely underrepresented among active green bonds. The Climate Bonds Initiative reported in 2018...
that globally, only 3–5 percent of the green bond proceeds could be traced to funding climate change adaptation and resilience (Climate Bonds Initiative 2018). The challenge of defining adaptation and resilience projects and evaluating them has contributed to the underrepresentation. On the one hand, investors want to know that projects align with certain adaptation goals. On the other hand, adaptation is regarded as notoriously difficult to measure, track, and evaluate, compounding the challenges involved in adequately pricing climate risks.

**CONCLUSIONS**

This chapter has highlighted the enormous climate change challenges that MENAP countries are already facing, as well as the likelihood these will intensify in the decades ahead. Given the threat from climate change to socioeconomic development and stability, the region needs to move from aspiration to action on adaptation efforts.

Across the region, common priorities include mainstreaming adaptation into policy frameworks; considering efficient public interventions, such as no-regret measures, that could boost climate resilience; and encouraging greater participation of the private sector. Aside from these common goals, there are also some specific priorities for country groups with similar levels of climate resilience and available fiscal space:

- **Higher and middle-income countries**, particularly hydrocarbon-rich Gulf Cooperation Council countries, are relatively less exposed and vulnerable to climate shocks. The quality of their adaptation strategy would benefit from strengthening administrative capacity to ensure a holistic and well-prioritized approach. Bolstering international cooperation would also allow their adaptation strategies to exploit the latest technologies.

- **Middle-income countries with medium resilience but without fiscal space** should develop policies that make space for adaptation spending while preserving debt sustainability, focusing on enhancing domestic revenue mobilization and expenditure efficiency, as well as accessing more international assistance. They should also improve the quality of public services and targeting of social safety nets and, where administrative capacity allows, consider introducing state-dependent social transfers and indexed cash transfers. In addition, these countries should strengthen financial inclusion and insurance against natural hazards, particularly for farmers, and leverage public-private-partnerships for infrastructure development.

- **Lower-income, fragile and conflict-affected countries** lack their peers’ fiscal space and additionally have particularly low climate resilience and administrative capacity. They should strengthen disaster preparedness and coping capacities, while trying to build broader institutional capacity and social resilience. To gradually upgrade social spending and infrastructure, these countries need international support for financing and capacity development. Spending needs could also be supported through greater domestic revenue mobilization.

Limited adaptation progress so far underscores the need for greater domestic consultation and international cooperation. Given the redistributational impact of climate policies within and across countries, policymakers need to acknowledge political economy sensitivities. This means consulting stakeholders and designing compensation mechanisms to galvanize broad societal support for climate policies. Furthermore, while cross-country cooperation can support the effectiveness of a country’s adaptation policy, international cooperation and support is crucial to address frequently binding capacity and funding bottlenecks.

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Despite some gains made in poverty reduction, literacy, and lifespans in the past few decades, many economies in the Middle East and North Africa have struggled to ensure that the benefits of economic development and diversification accrue equitably to all segments of their populations. Ten years after the Arab Spring, equal opportunities are still not available for all—indeed, in particular for the young, women, and entrepreneurs. Meanwhile, the COVID-19 epidemic, the war in Ukraine, demographic changes, evolving climate conditions, and other factors threaten to exacerbate long-standing issues of high unemployment and inequality in the region. Using recent IMF research, this book analyzes various approaches to these challenges and makes concrete policy recommendations to boost job-rich and inclusive growth in the region. It warns that a return to the old social contract is neither desirable nor feasible.

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