

# Growth in the Middle East and North Africa

Roberta Gatti, Jesica Torres, Nelly Elmallakh, Gianluca Mele, Diego Faurès, Mennatallah Emam Mousa, and Ilias Suvanov



# Growth in the Middle East and North Africa

© 2024 International Bank for Reconstruction and Development / The World Bank  
1818 H Street NW, Washington, DC 20433  
Telephone: 202-473-1000; Internet: [www.worldbank.org](http://www.worldbank.org)

Some rights reserved

1 2 3 4 27 26 25 24

This work is a product of the staff of The World Bank with external contributions. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of The World Bank, its Board of Executive Directors, or the governments they represent. The World Bank does not guarantee the accuracy, completeness, or currency of the data included in this work and does not assume responsibility for any errors, omissions, or discrepancies in the information, or liability with respect to the use of or failure to use the information, methods, processes, or conclusions set forth. The boundaries, colors, denominations, links/footnotes and other information shown in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries. The citation of works authored by others does not mean the World Bank endorses the views expressed by those authors or the content of their works.

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

### ***Rights and Permissions***



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

**Attribution**—Please cite the work as follows: Gatti, Roberta, Jesica Torres, Nelly Elmallakh, Gianluca Mele, Diego Faurès, Mennatallah Emam Mousa, and Ilias Suvanov. 2024. *Growth in the Middle East and North Africa*. Middle East and North Africa Economic Update (October), Washington, DC: World Bank. DOI: 10.1596/978-1-4648-2179-0. License: Creative Commons Attribution CC BY 3.0 IGO.

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

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

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

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

ISBN (electronic): 978-1-4648-2179-0

DOI: 10.1596/978-1-4648-2179-0

Cover image: iStock.com / © filo; with modifications. Further permission required for reuse.

Cover design: Jihane El Khoury Roederer

# Contents

Acknowledgements .....	v
Abbreviations .....	vi
Foreword .....	vii
<b>CHAPTER I. OVERVIEW .....</b>	<b>1</b>
A fragile growth .....	1
The economic consequences of the conflict centered in Gaza .....	2
The long shadows of conflicts in MENA .....	2
Prospects for a more prosperous region .....	2
<b>CHAPTER II. MACROECONOMIC OUTLOOK .....</b>	<b>4</b>
<b>GLOBAL ECONOMIC CONTEXT .....</b>	<b>4</b>
Global economic growth: The global economy is stabilizing while the outlook remains subdued .....	4
Global inflation and interest rates: Easing inflation with disinflation progressing slower than expected .....	5
Food price inflation: Prices of agricultural commodities decline but remain above pre-pandemic levels through 2025 .....	6
Oil production and global demand: Oil price fluctuations through 2024 .....	7
<b>GROWTH FORECASTS AND MACROECONOMIC TRENDS IN THE MENA REGION .....</b>	<b>8</b>
Growth forecasts: Subdued growth in 2024 with important disparities within the region .....	8
Real GDP per capita: Modest improvements in standards of living amidst high uncertainty .....	10
Poverty in MENA: A troubling increase across the region .....	12
Current account and fiscal account balances: Hydrocarbons shape oil exporters' balances, while developing oil importers battle twin deficits .....	15
Inflation in MENA: Inflation shows overall easing, but high levels persist in some countries .....	16
Forecast revisions: Widespread growth downgrades with sharpest declines in fragile and conflict-affected situations .....	18
Mounting uncertainty in the MENA region .....	20
<b>CHAPTER III. UPDATE ON THE CONFLICT CENTERED IN GAZA .....</b>	<b>22</b>
Effects on the West Bank and Gaza .....	22
Effects of the conflict on MENA and the global economy .....	24
<b>CHAPTER IV. THE COST OF CONFLICT IN MENA .....</b>	<b>27</b>
A significant rise in frequency and severity of conflicts in MENA .....	27
The ripple effects of conflicts on afflicted countries .....	29
Conflicts lead to human capital losses, increased food insecurity, supply chain disruptions, and lower investment .....	32
Peace is an essential prerequisite for economic development .....	34

<b>CHAPTER V. DRIVING GROWTH IN THE MIDDLE EAST AND NORTH AFRICA .....</b>	<b>36</b>
Income per capita in the MENA region between 1970 and 2019 .....	36
Development accounting for MENA .....	39
Increasing employment rates and enhancing aggregate productivity are critical to boosting growth in the region.....	43
Closing the gender employment gap would increase income per capita.....	48
Transforming the role and the size of the state to improve the allocation of resources .....	51
Tapping into the frontier of technology through more international trade .....	54
Data transparency for more growth.....	56
References .....	58
Appendix.....	63

## List of Figures

Figure II.1. Contributions to global growth. ....	5
Figure II.2. Inflation. ....	6
Figure II.3. Index of global price of important agricultural commodities from January 2020 to September 2024. ....	6
Figure II.4. Hydrocarbon spot prices and futures.....	7
Figure II.5. Real GDP growth since 2020. ....	8
Figure II.6. Index of real GDP per capita levels in 2019–2024. ....	12
Figure II.7. Regional poverty estimates.....	13
Figure II.8. Poverty in MENA. ....	13
Figure II.9. Inflation in MENA by country groupings of exchange rate regimes (y/y inflation August 2024, August 2023).....	17
Figure II.10. Private sector forecasts revisions of 2024 real GDP growth since January 2023 .....	19
Figure II.11. Share and magnitude of private sector forecast downgrades for 2024 real GDP growth since January 2023 among MENA countries and other EMDEs. ....	20
Figure II.12. Private sector forecast dispersion as a proxy for uncertainty. ....	21
Figure III.1. Energy and financial markets. ....	26
Figure III.2. Shipping disruption. ....	26
Figure IV.1. Conflicts and fatalities since 1990, by region.....	28
Figure IV.2. The share of countries in conflict by region since 1990. ....	28
Figure IV.3. Incidence of entry into conflicts in MENA by income group.....	29
Figure IV.4. Counterfactual estimates of income per capita relative to the frontier for MENA countries in conflict. ....	30
Figure IV.5. Counterfactual estimates of income per capita relative to the frontier around selected conflict events. ....	31
Figure IV.6. Composite risk rating in MENA and share of businesses facing political instability.....	33
Figure V.1. Income per capita in MENA income groups, 1970–2019. ....	37
Figure V.2. Income per capita in MENA, EMDEs, and advanced economies, 1970–2019.....	37
Figure V.3. In the past 50 years, income per capita in MENA oil importers has more than tripled... ..	38

Figure V.4. ...while income per capita in the rest of MENA developing economies has lagged further behind the frontier.....	38
Figure V.5. Among oil importers, growth in income per capita has dramatically slowed; among oil exporters, growth is highly volatile.....	39
Figure V.6. In MENA oil exporters, GDP per capita varies with the price of oil, but consumption per capita is less volatile.....	42
Figure V.7. The difference between income per capita and consumption per capita, both relative to the frontier economy, is not quantitatively significant.....	42
Figure V.8. Low employment-to-population ratios and low aggregate productivity together explain most of the distance in standards of living in MENA from the frontier.....	46
Figure V.9. The Arab Republic of Egypt exhibits the 3rd lowest capital-output ratio among 180 economies.....	47
Figure V.10. MENA developing economies exhibit the lowest employment-to-population ratios when compared to income peers.....	47
Figure V.11. The productivity measure from the accounting exercise (TFP residual) for most MENA countries is significantly above average when compared to productivity estimates from micro-data.....	47
Figure V.12. Employment rates in the region have not kept pace with gains in years of schooling in the past 50 years.....	49
Figure V.13. MENA countries exhibit some of the largest gaps between men and women in observed rates of labor force participation.....	49
Figure V.14. Capital-skill complementarities could amplify the gains from closing gender employment gaps as workers in MENA continue to acquire schooling.....	50
Figure V.15. The public sector in MENA employs a disproportionate share of both men and women.....	52
Figure V.16. MENA underperforms every other region in accountability.....	53
Figure V.17. The size of the public sector in some developing economies in MENA might be too large relative to the level of efficiency of public goods.....	53
Figure V.18. Countries in MENA produce relatively few scientific articles per capita.....	55
Figure V.19. The knowledge generated in MENA has less impact in terms of citations compared to countries of similar size.....	55
Figure V.20. The novelty of the knowledge produced in Saudi Arabia took off in the last 15 years, but it still very far away from the frontier (frontier economy = 1).....	55
Figure V.21. Most MENA economies are below the median in an index of openness to non-oil exports, which points to potential outward barriers.....	56
Figure A1. Propensity to consume in MENA oil importing countries and the frontier 1950–2019.....	63
Figure A2. Propensity to consume in MENA developing oil exporters and the frontier, 1950–2019.....	63
Figure A3. Propensity to consume in GCC countries and the frontier, 1950–2019.....	64
Figure A4. Index of Years of schooling relative to the frontier, 2017.....	65

## List of Tables

Table II.1. 2024 real GDP forecasts by editions of the MENA Economic Update.....	10
Table II.2. Actual and projected real GDP growth, real GDP per capita growth, current account balance, and fiscal account balance in the Middle East and North Africa, by economy, 2022–25.....	11
Table BII.1. Availability and access to household budget surveys at the World Bank circa 2013 and 2022 years. ....	14
Table II.3. Inflation in the Middle East and North Africa, by economy, 2022–2025. ....	17
Table BIV.1.1. Selected conflict episodes included in the analysis.....	32
Table V.1. Breaking down income per capita for the Middle East and North Africa (values relative to the frontier). ....	43
Table V.2. Breaking down income per capita for the Middle East and North Africa, adjusted by the share of natural resources rents (values relative to the frontier) .....	44
Table V.3. Breaking down consumption per capita for the Middle East and North Africa countries (values relative to the frontier). ....	45
Table A1. Raw values for the development accounting exercise for the MENA region and the United States. ....	64
Table A2. Total natural resources rents (as a percent of GDP) for the MENA countries and the United States, 2017.....	65

## List of Boxes

Box II.1. Poverty data limitations in the MENA region. ....	14
Box IV.1. Methodology used to construct counterfactual scenarios in the absence of conflict. ....	31
Box IV.2 The paradox of Europe’s extraordinary recovery following World War II.....	35
Box V.1. Development accounting.....	40
Box V.2. The rise in female labor force participation in Saudi Arabia.....	50

## Acknowledgements

The MENA Economic Update is a product of the Office of the Chief Economist for the Middle East and North Africa region of the World Bank. This edition of the report was written by Roberta Gatti (Regional Chief Economist), Jesica Torres (Task Team Leader, TTL), Nelly Elmallakh, Gianluca Mele, Diego Faurès, Mennatallah Emam Mousa, and Ilias Suvanov.

The team is grateful to Ousmane Dione, Regional Vice President, for his strategic guidance, and to Stefan G. Koeberle, Nadir Mohammed, Fadia M. Saadah, Ahmadou Moustapha Ndiaye, Safaa El Tayeb El-Kogali, Claire Kfourri, Djibrilla Adamou Issa, Maria Sarraf, Clelia Rontoyanni, and Abdoulaye Sy for their helpful comments.

The team acknowledges with many thanks the technical advice of Chang-Tai Hsieh (Phyllis and Irwin Winkelried Distinguished Service Professor of Economics at the University of Chicago Booth School of Business) and of our World Bank Group colleagues Aart Kraay and Daniel Lederman.

The team received critical analytical inputs, support, and comments from many colleagues, encompassing the World Bank's MENA Macroeconomics Trade and Investment team, headed by Eric Le Borgne: Zeljko Bogetic, Sara Alnashar, Fatma Elashmawy, Dima Krayem, Nur Nasser Eddin, Ramy Ibrahim Farag Oraby, Alief Aulia Rezza, Sarah Sammy Farid Sammy, Zeina Alsharkas, Mohammad Al Akkaoui, Luan Zhao, Khaled Alhmoud, Cyril Desponts, Ashwaq Natiq Maseeh, Yasmine Osman, Diderot Guy Estaing Sandjong Tomi, Majid Kazemi, Mohammad Al Akkaoui, Massimiliano Cali, Javier Diaz Cassou, Daniel Prinz, and Muhammad Khudadad Chattha. The team is also grateful for the feedback and analytical inputs received from our Global Economic Prospects colleagues Naotaka Sugawara, Nikita Perevalov, and Paolo Agnolucci, and from our Poverty and Equity colleagues Alan Fuchs, Aziz Atamanov, and Laura Liliana Moreno Herrera. The team is also thankful for the feedback provided by our MENA Chief Economist Office colleagues Harun Onder, Hoda Assem, Rana Lotfi, Leila Baghdadi, Federico R. Bennett, Asif M. Islam, and Ernest John Sergenti.

Serene Jweied provided timely advice on messaging during the final stages in the production of this report. We thank James L. Rowe Jr for editing the manuscript, Jihane El Khoury Roederer for the cover design, and Budy Wirasmo for typesetting. Help from the Translation and Printing and Multimedia and Interactive Media Units of the World Bank's Global Corporate Solutions is acknowledged. Stellar administrative support was provided by Asma Saleh Al-Hanshali and Heran Getachew Negatu.

## Abbreviations

AEs	Advanced Economies	IRN	Islamic Republic of Iran	QAT	Qatar
ARE	United Arab Emirates	IRQ	Iraq	R&D	Research and development
Avg	Average	JOR	Jordan	REO	Regional Economic Outlook
BHR	Bahrain	KWT	Kuwait	RHS	Right-hand side
bln	billion	LAC	Latin America and the Caribbean	S&P	Standard and Poor's Global Ratings
COVID-19	Coronavirus Disease 2019	LBN	Lebanon	SA	South Asia
CPI	Consumer Price Index	LBP	Lebanese pound	SAU	Saudi Arabia
CY	Calendar year	LBY	Libya	SCI	Science Citation Index
DJI	Djibouti	LIC	Low-Income Country	SCM	Synthetic Control Method
DOE	Developing Oil Exporters	LMIC	Lower Middle-Income Country	SOEs	State Owned Enterprises
DOI	Developing Oil Importers	LNG	Liquefied Natural Gas	SSA	Sub-Saharan Africa
DZA	Algeria	log	Logarithmic	SSCI	Social Sciences Citation Index
e	Estimate	MAR	Morocco	SYR	Syrian Arab Republic
EAP	East Asia and Pacific	MENA	Middle East and North Africa	TFP	Total Factor Productivity
ECA	Europe and Central Asia	MEU	MENA Economic Update	TUN	Tunisia
ECB	European Central Bank	MMBtu	Million British thermal units	U.S.	United States
EGP	Egyptian Pound	MNACE	MENA Chief Economist Office	UCDP GED	Uppsala Conflict Data Program Georeferenced Event Dataset
EGY	Arab Republic of Egypt	MPO	Macro Poverty Outlook	UMIC	Upper Middle-Income Country
EMDEs	Emerging Market and Developing Economies	MSCI	Morgan Stanley Capital International	UN OCHA	United Nations Office for the Coordination of Humanitarian Affairs
ex-	excluding	N/A	Not Available	UNFPA	United Nations Population Fund
f	forecast	NA	North America	UNICEF	United Nations Children's Fund
FAO	Food and Agriculture Organization	NEC	Nippon Electric Company	US\$	United States Dollar
FCS	Fragile and Conflict-Affected Situations	NP	Not Presented	USA	United States of America
FDI	Foreign Direct Investment	NTL	Nighttime Light Satellite data	VAT	Value Added Tax
FLFP	Female Labor Force Participation	OECD	Organization for Economic Co-operation and Development	WCI	World Container Index
FX	Foreign Exchange	OMN	Oman	WDR	World Development Report
FY	Fiscal year	OPEC	Organization of the Petroleum Exporting Countries	WHO	World Health Organization
GCC	Gulf Cooperation Council	OPEC+	OPEC and other oil-producing countries	y/y	Year-on-year
GDP	Gross Domestic Product	p.p.	Percentage Points	YEM	Republic of Yemen
GEP	Global Economic Prospects	PA	Palestinian Authority		
Gol	Government of Israel	PHCs	Primary Healthcare Centers		
HICs	High-Income Countries	PIP	Poverty and Inequality Platform		
h-index	Hirsch index	PPPs	Purchasing Power Parities		
ICU	Intensive Care Unit	PSE	West Bank and Gaza		
IEA	International Energy Agency	PWT	Penn World Tables		
IFS	International Financial Statistics	Q	Quarter		
IMF	International Monetary Fund				
IPC	Integrated Food Security Phase Classification				

## Foreword

The October 2024 edition of the Middle East and North Africa Economic Update comes out at a pivotal time for the region. The continuing conflict in the Middle East is causing profound suffering. The conflict is taking a terrible toll on human lives, societies, and economies, and has repercussions that go well beyond those areas directly affected. There is little that can be built—and much that can be lost—in the face of conflict. At the World Bank, we know that peace is an essential prerequisite for development.

The cost of conflict transcends what common economic indicators can measure, but it certainly leads to immediate economic losses, with long-term detrimental effects on development. These impacts include human capital losses, the displacement of people, and the destruction of housing, infrastructure, and industry. The economic repercussions are far reaching. The report shows that, without conflict, income per capita in conflict-affected countries in MENA could have been on average 45 percent higher, measured seven years after the onset. As we look to opportunities ahead, we must first acknowledge that peace and stability provide the foundation upon which a sustainable future can be built.

To realize the potential of this region, we must shift perspectives and view development not merely as a challenge for the MENA region, but as an opportunity to mobilize vast human resources for the region's growth and prosperity—and the global community as well. These windows of opportunity are open.

The report analyses important areas for action to boost inclusive growth and prosperity. Better allocating talent in the labor market, leveraging the region's strategic location, and promoting innovation are key parts of this. Closing the gender employment gap, rethinking the footprint of the public and private sectors, and facilitating technology transfers through trade can further help the region leap forward.

Countries can better allocate their talent in the labor market and leverage their strategic location to boost innovation and sustain growth. The report is clear: talent misallocation has harmed living standards. The public sector may be pulling too much talent away from the private sector. Reallocating talent from public to the private sector could lead to substantial gains in aggregate productivity of up to 46 percent.

Another fundamental is clear: for economies to thrive, women must be included. Women's labor force participation in MENA is currently at 19 percent. The report estimates that closing that gender gap in employment could increase GDP per capita by 51 percent in the average MENA economy. The gains from reforms and actions for women's economic empowerment can materialize quickly. Saudi Arabia undertook reforms that removed barriers and made an environment more favorable for women to enter the workforce, with female labor force participation rate increasing from 22 to 35 percent in a matter of years. Jordan has launched the region's first comprehensive program addressing issues such as safe transportation, childcare, and training holistically to open new economic opportunities for women.

So many countries in the region are already showing the way, through successful reforms, investments, and initiatives. And at the World Bank Group, we will put the full power of our knowledge, technical assistance, financing, and partnership in supporting transformation to build this better future.

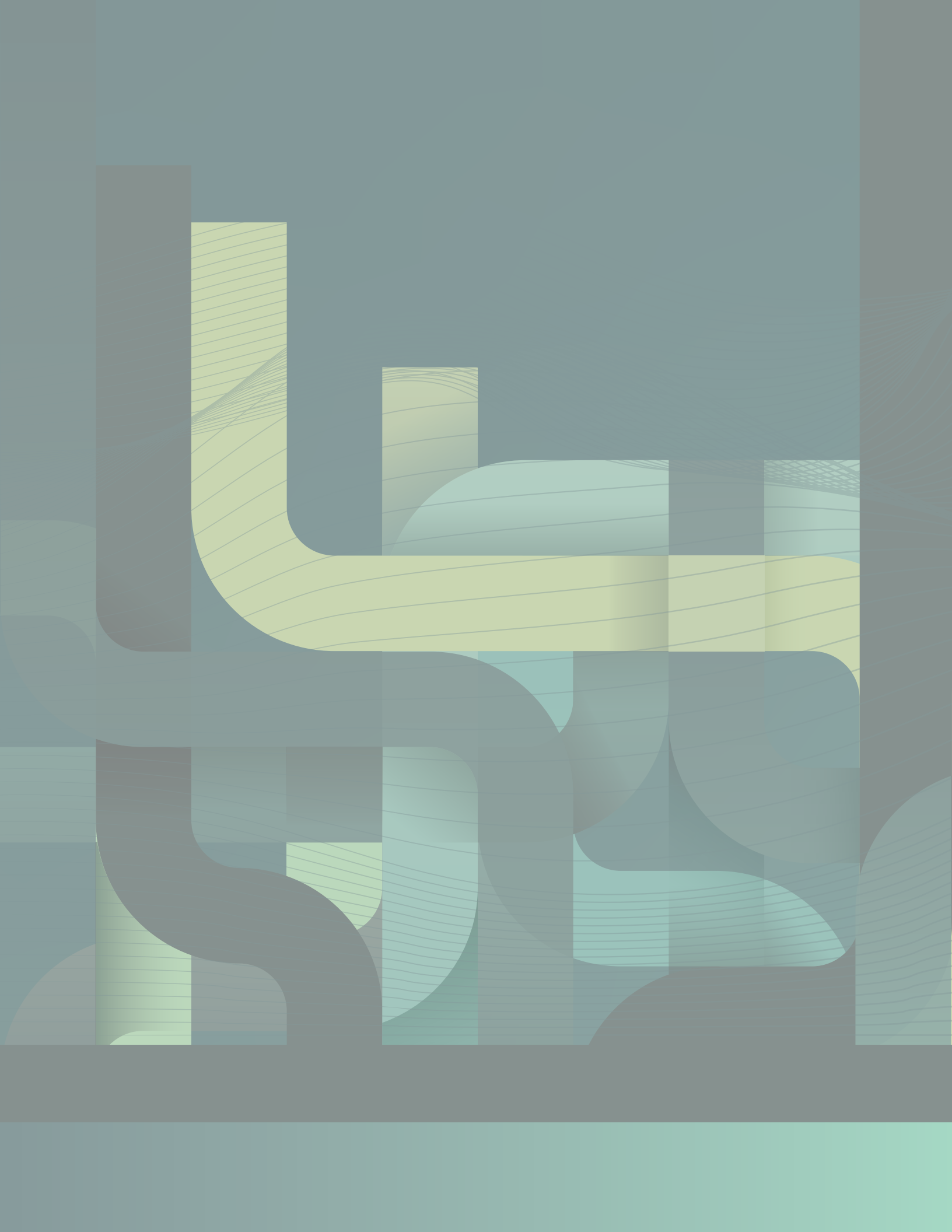
We stand at a pivotal moment. The region and the world are facing multiple and complex challenges. These challenges know no borders. They interconnect us. We must reimagine approaches and scale up collective action if we are to meet the needs—and deliver on the ambitions—to create a future worthy of all people of the MENA region.

***Ousmane Dione***

Vice President

Middle East and North Africa Region

The World Bank



## CHAPTER I. OVERVIEW

Middle East and North Africa (MENA) economies are not catching up with the rest of the world. The region's average per capita income has increased by just 62 percent over the last 50 years. In comparison, over the same period, the increase was fourfold in emerging market and developing economies (EMDEs) and twofold in advanced ones. Only a few developing MENA economies have avoided diverging further from the richest countries' living standards (what economists call the frontier), and those where conflicts erupted have accelerated in the wrong direction. To reach even half the level of GDP per capita of the current frontier, the region would need to grow at an average of 3.8 percent per year in per capita terms over the next three decades. While current growth performance falls well below that rate—and the region is strained by fragility, conflict, and uncertainty—a more prosperous future for MENA is possible.

This issue of the MENA Economic Update (MEU) focuses on growth from both a short- and a long-term perspective. First, it presents a summary of recent regional economic trends, including an update of the impact that the conflict centered in Gaza is having on the region and on the global economy. The report then delves into an analysis of the factors that shape MENA's long-term growth potential, with special attention to the persistent effects of conflict. The results are clear: peace is a pre-condition for catching up to the frontier, as conflict can undo decades of progress, delaying economic development by generations. The good news is that the region can dramatically boost growth by better allocating talent in the labor market, leveraging its strategic location, and promoting innovation. Closing the gender employment gap, rethinking the footprint of the public sector, and facilitating technology transfers through trade under enhanced data quality and transparency can help the region leap forward. The windows of opportunity remain open for MENA.

### A fragile growth

In 2024, real GDP growth in MENA is expected at 2.2 percent, a modest increase from 1.8 percent in 2023. This uptick masks important disparities within the region. It is driven by Gulf Cooperation Council (GCC) countries, where growth is forecast to rise from 0.5 percent in 2023 to 1.9 percent in 2024. Growth is expected to decelerate in the whole of developing MENA. In developing oil importers, it will decelerate from 3.2 percent in 2023 to 2.1 percent in 2024, as the repercussions of the ongoing conflict spill over directly onto some countries and exacerbate pre-existing vulnerabilities in others. Real GDP growth in developing oil exporters will decline from 3.2 percent in 2023 to 2.7 percent in 2024.

Over the past year, MENA's 2024 real GDP growth forecasts have been substantially downgraded, with the largest downward revisions among fragile and conflict-affected situations (FCS). These downgrades partly reflect the extension of OPEC+ oil production cuts and increased uncertainty due to the conflict centered in Gaza. Dispersion among private sector forecasters, a measure of uncertainty, has risen in MENA by 13 percent since October 2023. This contrasts sharply with the downward trend observed in other EMDEs and high-income countries. As of September 2024, uncertainty in MENA is nearly twice as high as in other EMDEs.

## The economic consequences of the conflict centered in Gaza

Amidst a deepening humanitarian crisis, Gaza's economy has come to a near-total halt, with a staggering 86 percent contraction in Q2 2024. In the West Bank, the economy also contracted by 23 percent in Q2 2024, largely due to tighter restrictions on movement, a drop in consumption, and a severe fiscal crisis. As a result of increased deductions by Israel on the clearance revenue transfers and reduced domestic tax receipts, the Palestinian Authority (PA) is facing a projected financing gap of US\$1.86 billion in 2024, according to official PA sources—more than double that of 2023.

In neighboring economies, the conflict suppressed economic activity, for example through tourism receipts (e.g., a 6.6 percent decrease in tourist arrivals in Jordan through August 2024, in annualized terms) and fiscal revenues (e.g., a 62 percent drop in Suez Canal revenues in the Arab Republic of Egypt in the first half of 2024 relative to the second half of 2023). As this issue of the MENA Economic Update was going to print, the escalation of the conflict in Lebanon is causing increasing human and economic tolls. The full extent of the impact of these escalations on Lebanon and the region will be shaped by the future trajectory of the conflict.

Globally, energy and financial markets have so far shown resilience. Despite some early, short-term fluctuations, spot oil prices and oil futures have fallen considerably since October 2023 amidst robust supply and concerns about sluggish demand. Disruptions in maritime transportation, especially through the Suez Canal, have increased shipping times and spot prices, with freight rates rising four- to fivefold by August 2024 compared to November 2023. With low global demand, increasing fleet sizes, and contractual price-stickiness, however, the increase in shipping costs has not passed through to consumers to date.

## The long shadow of conflict in MENA

The conflict centered in Gaza underscores a wider trend of increasing violence in the region. There has been more than a twofold increase in conflict episodes and a sixfold increase in MENA's share of global fatalities since the 1990s.

The cost of conflict transcends what common economic indicators can measure. Yet, conflicts certainly lead to immediate economic losses and can have long-term detrimental effects on development. These outcomes stem from human capital losses, forced displacement, the destruction of physical infrastructure, and various forms of economic disorganization, including supply chain disruptions. A Synthetic Control Method (SCM)-based analysis in this report shows that income per capita in conflict-affected countries in MENA could have been, on average, 45 percent higher without conflict, measured seven years after its onset. This loss is equivalent to 35 years' worth of progress in the region.

## Prospects for a more prosperous region

Despite the region's current challenges, there is significant untapped potential in MENA. Countries can better allocate their talent in the labor market and leverage their strategic location to boost innovation and sustain growth.

Talent misallocation, both in and out of the labor force and between the public and private sectors, has harmed living standards in the region. Over the past 50 years, schooling in MENA has rapidly increased, especially for women, but female labor force participation rates have stagnated. Closing gender employment gaps in MENA would result in a 51 percent increase in per capita income in the typical MENA country.

Additionally, public sector employment in MENA crowds out private sector employment, particularly for women. When women do participate in the labor market, they are more likely to work in the public sector. The female public sector employment share in MENA (37 percent) is the largest in the world, nearly double that of Europe and Central Asia—the second largest.

Moreover, the public sector may be pulling too much talent away from the private sector, without translating into better public goods and services. Reallocating talent towards the private sector could lead to substantial gains in aggregate productivity, ranging from 5 to 9 percent in the Islamic Republic of Iran, Tunisia, the Arab Republic of Egypt, and Jordan, to around 45 percent in Algeria and Iraq.

Gains from reforms could materialize quickly. Starting in 2016, for example, Saudi Arabia removed barriers preventing women from participating in all professions, driving, and accessing improved maternity leave. These changes were supported by programs that enhanced women's employment opportunities, such as job services, training, and childcare. They also created a regulatory environment favorable for women entering the workforce. These reforms likely contributed to the rise in female labor force participation, which increased from 22 percent in 2016 to 35 percent in 2023.

Finally, to promote further productivity gains, MENA countries can leverage their location to access frontier knowledge and technology through increased international trade. The knowledge produced in the region currently lags in both impact and novelty. International trade, and the technology and knowledge spillovers that come with it, can serve as a lever to boost aggregate productivity. Improving data quality and transparency in the region can help remove bottlenecks against technology diffusion and facilitate more and better circulation of ideas.

MENA has a long way to go, but the region also has large windows of opportunity.

## CHAPTER II. MACROECONOMIC OUTLOOK

### *Main findings*

- The global economy is stabilizing after enduring several years of negative shocks, but the outlook remains lackluster, with growth at 2.6 percent, unchanged since last year.
- Global inflation has eased since the peak levels reached in 2022, yet the disinflation process has been slower than expected globally.
- Oil prices have fluctuated throughout 2024 because of high geopolitical tensions and, as of October 1, are expected to be slightly lower in 2024 than in 2023.
- The Middle East and North Africa (MENA) is expected to grow at 2.2 percent in 2024. Yet, the outlook remains subdued and reveals important disparities within the region: faster growth in the Gulf Cooperation Council (GCC)—although at a slower pace than previously expected—deceleration in developing MENA countries, and further economic contraction in countries plagued by some form of conflict or fragility.
- The GCC is set to grow at 1.9 percent in 2024. Growth in developing oil exporters is forecast at 2.7 percent in 2024 and at 2.1 percent for developing oil importers.
- Uncertainty in MENA is high and increasing, with risks tilted to the downside because of the conflict in the Middle East centered in Gaza, its escalation and its adverse spillovers affecting neighboring countries—the focus of Chapter III of this report.

## GLOBAL ECONOMIC CONTEXT

### **Global economic growth: The global economy is stabilizing while the outlook remains subdued**

The global economy is steadying after enduring several years of negative shocks. According to the World Bank's June 2024 forecast, global economic growth is expected to remain unchanged at 2.6 percent this year. This rate reflects sluggish investment growth because of restrictive monetary policies and moderate consumption growth, which has slowed as the savings built up during the pandemic diminish and government fiscal spending declines (World Bank, 2024a).

The World Bank has slightly revised its 2024 global growth forecast upward, from 2.4 percent in January to 2.6 percent in June (World Bank, 2024a, 2024b). This slightly faster pace of global economic growth primarily reflects the continued expansion of the U.S. economy (Figure II.1).

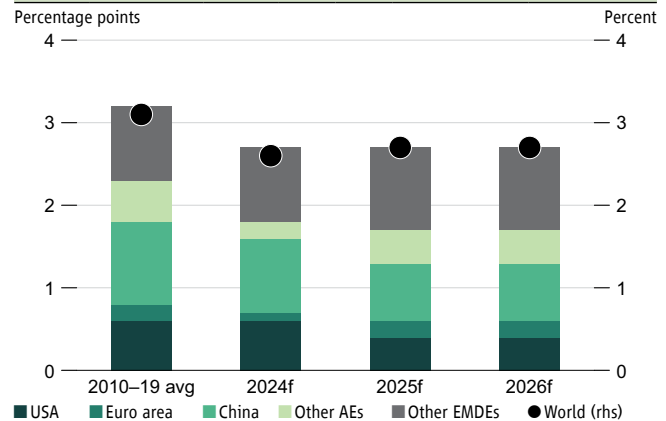
In 2025, global economic growth is expected to pick up a bit to 2.7 percent in the wake of cautious monetary policy easing—which supports economic activity in both advanced economies and Emerging Market and Developing Economies (EMDEs)—along with modest improvements in trade and investment.

Still, over the forecast horizon (2024–2026), growth is expected to be half a percentage point below the average from 2010 to 2019 (Figure II.1).<sup>1</sup> Advanced economies and EMDEs alike are expected to grow at a much slower pace over 2024–2026 compared to the decade before the pandemic, albeit with diverging growth patterns.

Growth in advanced economies is projected to be 1.5 percent in 2024, unchanged from 2023, reflecting weak economic activity in the euro area and Japan, which will be offset by resilient U.S. growth. Economic growth in advanced economies is anticipated to pick up to 1.7 percent in 2025 and 1.8 percent in 2026—as growth firms in the euro area and Japan, while U.S. growth slows.

Growth in EMDEs is expected to moderate to 4 percent in 2024, from 4.2 percent in 2023, and to remain around 4 percent over 2025–26. This deceleration reflects factors peculiar to some large economies—especially, the growth slowdown in China and subdued growth among commodity exporters because of weak global demand. Growth in China is expected to slow to 4.8 percent in 2024 from 5.2 percent in 2023, and to decline further to 4.1 percent in 2025 and to 4 percent in 2026 due to tepid investment growth and the continued property sector downturn. EMDEs, excluding China, are projected to grow at 3.5 percent in 2024 and to hover around 3.9 percent over 2025–26, a slight improvement from 3.4 percent in 2023 (Figure II.1). Yet, significant challenges remain in vulnerable economies, particularly in low-income countries and those experiencing high levels of conflict and violence, where growth prospects have worsened since January 2024.

**Figure II.1.** Contributions to global growth.



Source: World Bank, *Global Economic Prospects*, June 2024.

Note: f = forecast; AEs = advanced economies; EMDEs = emerging market and developing economies. GDP aggregates are calculated using real U.S. dollar GDP weights at average 2010–19 prices and market exchange rates.

## Global inflation and interest rates: Easing inflation with disinflation progressing slower than expected

Global inflation has decreased from the peak levels seen in 2022. In the last quarter of 2023, global inflation reached 4.1 percent, down from a peak of 9 percent in the third quarter of 2022 (Figure II.2, Panel A). However, inflation remains above target in most advanced economies and in roughly 25 percent of EMDEs that have inflation targets. In advanced economies, the disinflation in consumer goods prices seems to have levelled off, while inflation in consumer services remains high. In the United States, strong economic activity and rapid increases in shelter costs have led to persistently high prices for services and, more broadly, core inflation<sup>2</sup> in recent months. In EMDEs, although headline inflation has continued to decline, persistently high core inflation—driven by services prices including shelter—mirrors the situation in advanced economies (World Bank, 2024a).

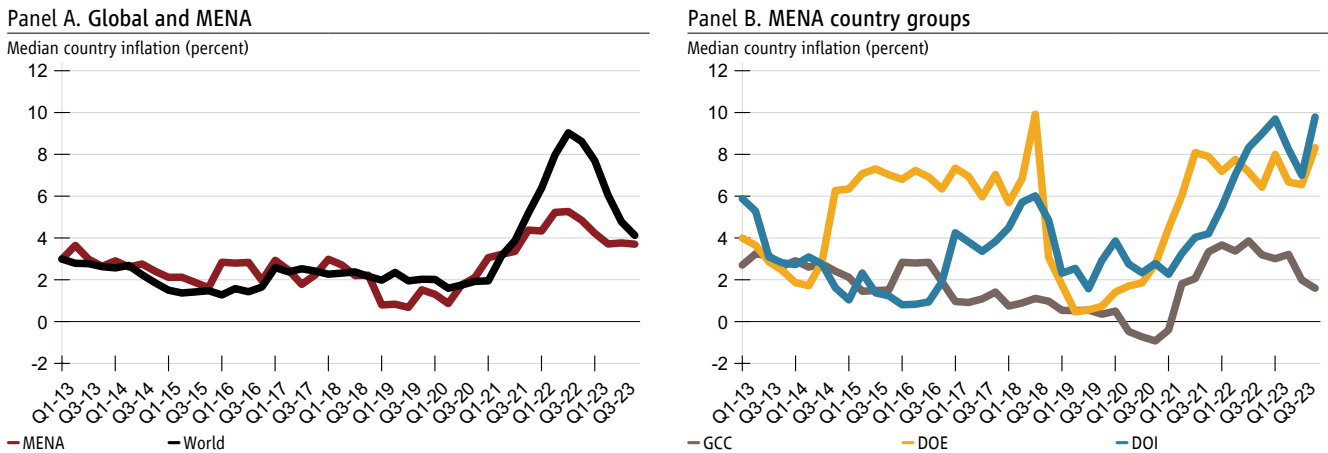
According to the World Bank June 2024 forecast, global inflation is projected to moderate to 3.5 percent in 2024, to decline further to 2.9 percent in 2025, and to settle at 2.8 percent by the end of 2026—a scenario that aligns broadly with central bank targets. Yet, inflation has been declining at a slower pace globally than previously expected. Both

<sup>1</sup> Relative to pre-pandemic levels, growth has particularly weakened in countries that experienced high inflation rates (World Bank, 2024a).

<sup>2</sup> Core inflation factors out volatile food and fuel prices from the consumer price index.

advanced economies and EMDEs are likely to adopt a cautious approach to policy easing, keeping rates higher than pre-pandemic levels. In advanced economies, rates are projected to remain more than double their 2000–2019 average over the coming years (World Bank, 2024a). Currently, major economies, including the European Central Bank and the U.S. Federal Reserve, have begun cautiously easing interest rates.<sup>3</sup>

Figure II.2. Inflation.

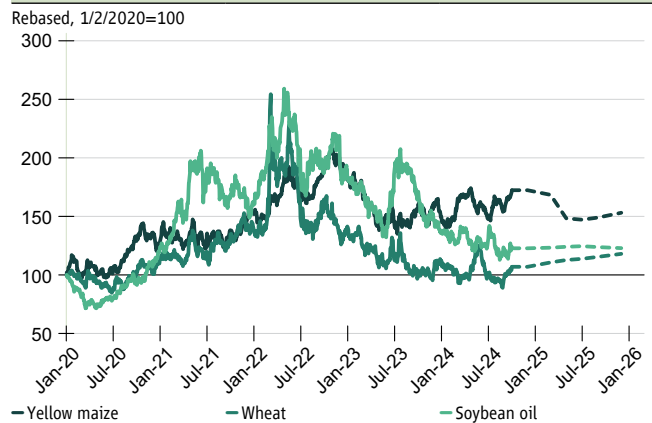


Source: World Bank staff calculations based on International Monetary Fund, *International Financial Statistics*.  
 Note: MENA = Middle East and North Africa, (Algeria, Bahrain, the Arab Republic of Egypt, the Islamic Republic of Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Tunisia and the West Bank and Gaza). Gulf Cooperation Council = Bahrain, Kuwait, Oman, Qatar and Saudi Arabia. Developing oil exporters = Algeria, the Islamic Republic of Iran, Iraq, Libya. Developing oil importers = The Arab Republic of Egypt, Jordan, Lebanon, Morocco, Tunisia, and West Bank and Gaza. All groups include the same countries for each period. From Q1 2013 to Q3 2023, World comprises 132 countries, including 15 MENA countries. For Q4 2023, World comprises 128 countries, including 14 MENA countries.

## Food price inflation: Prices of agricultural commodities decline but remain above pre-pandemic levels through 2025

Prices of agricultural commodities have also declined from the high levels of 2022. The prices of U.S. yellow maize, U.S. wheat, and U.S. soybean oil steadily decreased in the first half of 2023. Their volatility increased during July–August 2023 before pulling back in the last quarter of 2023 and into 2024 (Figure II.3). Despite a decline in consumer food price inflation, acute food insecurity is estimated to have doubled worldwide since 2019 (World Bank, 2024a). As of October 1, 2024, futures indicate that the prices of all agricultural commodities are expected to remain above pre-pandemic levels through 2025 (Figure II.3). Only the price of U.S. wheat briefly returned to pre-pandemic levels between July and August 2024 before increasing again to exceed pre-pandemic levels.

Figure II.3. Index of global price of important agricultural commodities from January 2020 to September 2024.



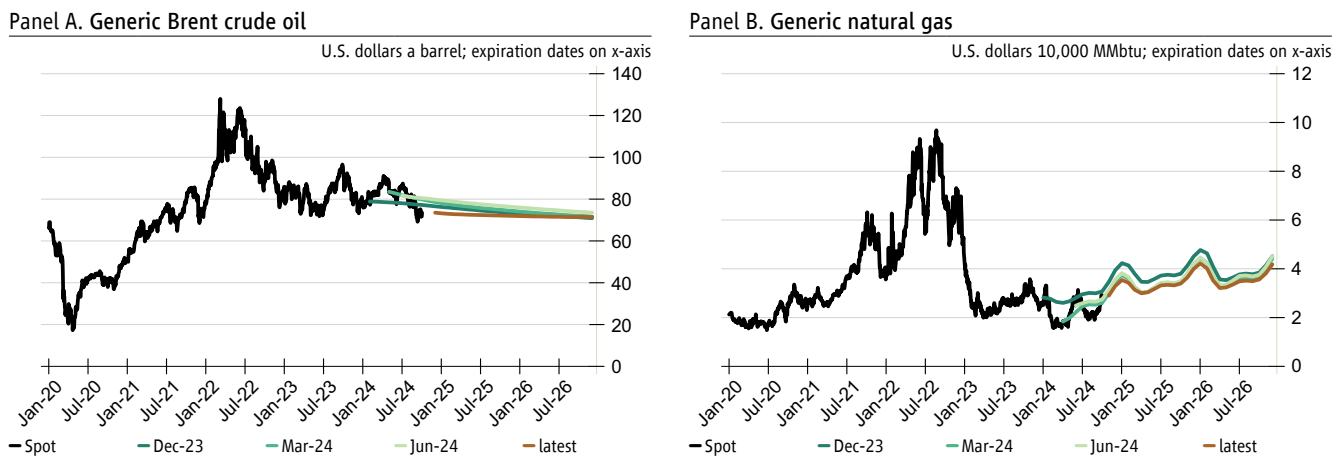
Source: World Bank staff calculations based on Bloomberg L.P.  
 Note: Commodities shown are U.S. yellow corn (maize), U.S. wheat, and U.S. soybean oil contracts. Solid lines indicate spot price per commodity through October 1, 2024; dotted lines indicate futures prices as of October 1, 2024. The horizontal black line reflects a base of 100 on January 2, 2020.

<sup>3</sup> On September 18, 2024, the U.S. Federal Reserve lowered its benchmark federal funds rate by 50 basis points to between 4.75 percent and 5 percent. Effective September 18, 2024, the European Central Bank (ECB) cut the deposit facility rate by 25 basis points to 3.5 percent to ease monetary policy restrictions.

## Oil production and global demand: Oil price fluctuations through 2024

In 2024, average oil prices are anticipated to be slightly lower than in 2023. As of October 1, the estimated average for calendar year 2024 (based on spot and futures contracts) was US\$81 per barrel, slightly lower than the US\$83 average in 2023, and significantly lower than the average US\$100 per barrel in 2022.<sup>4</sup> Oil prices have fluctuated in 2024, with a significant increase in April 2024 to US\$88 because of escalating tensions in the Middle East, but have since retreated (Figure II.4, Panel A). On October 1, 2024, oil prices were trending at US\$73.6 per barrel. Oil futures, as of October 1, 2024, indicate generally lower medium-term prices than in December 2023, March 2024, and June 2024, with end-2026 futures trading at US\$71.5 per barrel (Figure II.4, Panel A).

**Figure II.4.** Hydrocarbon spot prices and futures.



Source: World Bank staff calculations based on Bloomberg, L.P.

Note: MMBtu = million British thermal units. The black lines indicate the daily closing spot price of generic Brent crude oil (Panel A) and generic natural gas (Panel B) through October 1, 2024. The colored lines show the closing futures prices of generic Brent crude oil (Panel A) and generic natural gas (Panel B) on the indicated dates. The latest futures prices as of October 1, 2024. The latest futures observation is for December 2026.

Natural gas prices fell sharply in the first quarter of 2024 from the previous quarter (Figure II.4, Panel B). After reaching a nearly 30-year low in March 2024, the price of U.S. natural gas surged in May 2024 to US\$2.4 per 10,000 MMBtu (million British thermal units), partly due to an increase in liquefied natural gas (LNG) exports. U.S. natural gas prices were trending at US\$2.9 per 10,000 MMBtu on October 1, 2024. Natural gas futures in 2024 suggest a more moderate outlook compared to 2023, with medium-term prices generally expected to be lower than those projected by 2023 futures. Metal prices, excluding precious metals, are expected to remain stable over 2024–25 but above pre-pandemic levels. This is due to increased demand from clean energy investments and global industrial activity, offset by declining real estate activity in China (World Bank, 2024a).

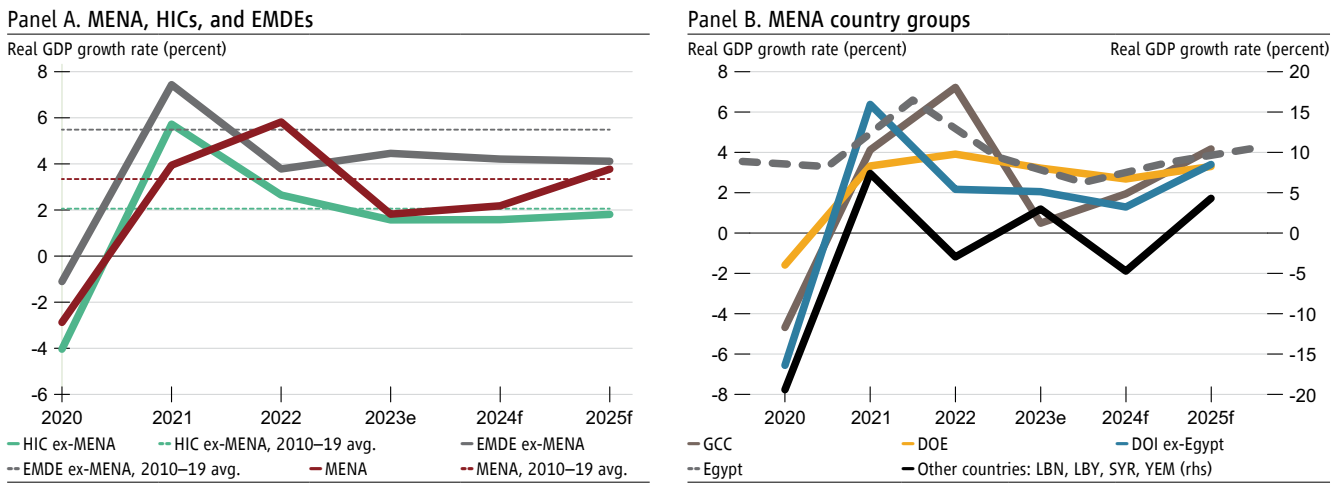
<sup>4</sup> The estimated oil price in calendar year 2024 is based on the staff calculations based on data from Bloomberg L.P. The estimate for the average 2024 price is calculated using the spot price for the last trading day of each month between January and September 2024, and futures as of August 30, 2024, from October 2024 through the end of the year (a total of 12 data points for 2024). The average prices for benchmark Brent crude oil prices in 2022 and 2023 come from the World Bank Commodity Price data.

# GROWTH FORECASTS AND MACROECONOMIC TRENDS IN THE MENA REGION

## Growth forecasts: Subdued growth in 2024 with important disparities within the region

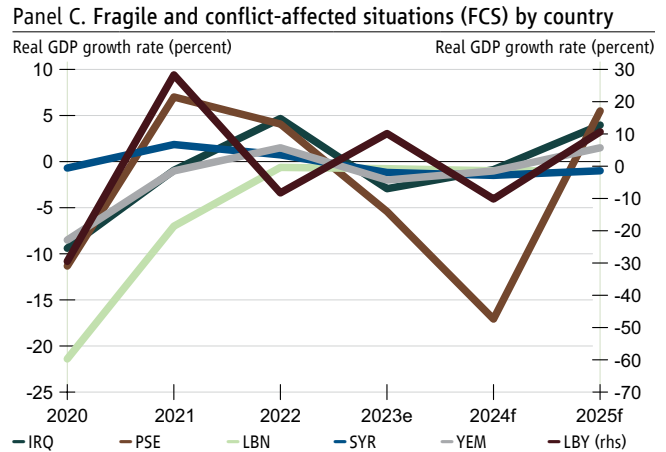
Like the rest of the world, the MENA region has experienced a series of severe shocks since 2020—beginning with the COVID-19 pandemic, followed by Russia’s invasion of Ukraine, high inflation and tightened financial conditions, and natural disasters.

**Figure II.5.** Real GDP growth since 2020.



The COVID-19 pandemic led to a marked economic deceleration in 2020 in both high-income countries and EMDEs, and in the region (Figure II.5, Panel A). MENA experienced a more tepid recovery in economic growth in 2021 than did high-income countries and EMDEs, particularly MENA oil exporting countries—both high-income Gulf Cooperation Council countries (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates) and developing oil exporters (Algeria, the Islamic Republic of Iran, and Iraq) (Figure II.5, Panel B).

In 2022, the region experienced extraordinarily rapid growth—in the wake of the surge in oil prices that followed Russia’s invasion of Ukraine—outpacing economic growth in both high-income countries and other EMDEs (Figure II.5, Panel A). The increase in oil prices boosted economic growth in oil-exporting economies in the region, while economic growth decelerated in developing oil importers (Djibouti, the Arab Republic of Egypt, Jordan, Lebanon, Morocco, and the West Bank and Gaza) (Figure II.5, Panel B)—divergent growth patterns that were called the “tale of two MENAs,” in previous editions of the *Economic Update*.



Sources: World Bank staff calculations based on the World Bank’s *Macro Poverty Outlook*, October 2024.  
 Note: e = estimate, f = forecast. MENA = Middle East and North Africa. EMDE (ex-MENA) = Emerging Market and Developing Economies, excluding MENA countries. Gulf Cooperation Council = Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, the United Arab Emirates. Developing Oil Exporters = Algeria, the Islamic Republic of Iran, Iraq. Developing Oil Importers ex-the Arab Republic of Egypt = Djibouti, Jordan, Morocco, Tunisia, the West Bank and Gaza. HIC ex-MENA = high-income countries excluding MENA. Other countries = Libya, Lebanon, the Syrian Arab Republic, and the Republic of Yemen. LBN = Lebanon. LBY = Libya. SYR = The Syrian Arab Republic. YEM = The Republic of Yemen. IRQ = Iraq. PSE = The West Bank and Gaza. Panel B. data for the Arab Republic of Egypt are for fiscal years (beginning on July 1 and ending June 30). Panel C. FCS = Fragile and Conflict-Affected Situations = Iraq, Libya, Lebanon, the Syrian Arab Republic, the Republic of Yemen, and the West Bank and Gaza. Other countries average in 2025f include Libya, the Syrian Arab Republic, and the Republic of Yemen. Iraq’s real GDP growth rates are World Bank estimations at constant market prices. For the years between 2023 and 2025, real GDP growth rates for Iraq at constant market prices are identical to real GDP growth rates at constant factor prices. Pre-2023, the two series for Iraq (constant market prices and constant factor prices) differ slightly. Numbers are as of October 2, 2024.

In 2023, successive oil production cuts by OPEC+ countries<sup>5</sup>—including three rounds of deep cuts in April, June, and November—combined with relatively low oil price levels, marked the end of the “tale of two MENAs.” Despite OPEC+ efforts to stabilize prices, average oil prices fell to US\$83 per barrel in 2023 from US\$100 in 2022, reducing receipts for oil exporters. Weaker global demand, driven by slower growth in China, exerted downward pressure on oil prices and is likely to continue doing so, potentially offsetting the impact of OPEC+ production cuts (World Bank, 2024c). Real GDP growth in GCC countries fell from 7.2 percent in 2022 to 0.5 percent in 2023. Growth in developing oil importers, excluding the Arab Republic of Egypt, remained roughly unchanged from 2.2 percent in 2022 to 2.0 percent in 2023, while growth in developing oil exporters decreased from 3.9 percent in 2022 to 3.2 percent in 2023 (Figure II.5, Panel B).

Since the beginning of the conflict in the Middle East centered in Gaza in early October 2023, geopolitical tensions and uncertainty have been high in MENA, weighing on the region’s growth outlook. MENA has returned to lackluster growth, a pattern that persisted in the decade leading up to the pandemic and the other shocks that started in 2020 (Belhaj et al., 2022, Gatti et al., 2023, Gatti et al., 2024). The outlook for 2024 remains subdued with important disparities within the region. In 2024, economic activity in MENA (excluding Libya, Lebanon, the Syrian Arab Republic, and the Republic of Yemen) is expected to rise slightly to 2.2 percent in 2024, after slowing to 1.8 percent in 2023. Yet, growth in MENA in 2024 remains one percentage point below the pre-pandemic average between 2010 and 2019 (Figure II.5, Panel A).

The growth pickup in 2024 is primarily fueled by GCC countries, anticipated to grow at 1.9 percent in 2024 up from 0.5 percent in 2023 (Figure II.5, Panel B). Yet, growth in GCC countries is slower than previously anticipated because of the extension of oil production cuts<sup>6</sup>. Growth is expected to decelerate in developing oil exporters, from 3.2 percent in 2023 to 2.7 percent in 2024, and in developing oil importers (excluding the Arab Republic of Egypt), from 2.0 percent in 2023 to 1.3 percent in 2024, as the repercussions of the ongoing conflict directly impact some countries and exacerbate pre-existing vulnerabilities in others.

Among developing oil importers, real GDP growth is expected to decelerate in all countries, except Tunisia where it is projected to rise to 1.2 percent in 2024 from zero percent in 2023. This increase reflects a mild recovery in the agricultural sector in Tunisia, which continues to suffer from the lingering effects of drought conditions following four years of below-average rainfall. Morocco, on the other hand, is set to experience a deceleration in real GDP growth from 3.4 percent in 2023 to 2.9 percent in 2024 due to the contraction of the agricultural sector amidst a prolonged drought. Growth in the Arab Republic of Egypt is also forecast to decline from 3.8 percent in fiscal year 2023 to 2.5 percent in fiscal year 2024 due to weak manufacturing activity, import restrictions, a downturn in gas extraction operations, and reduced shipping through the Suez Canal (World Bank, 2024a). The outlook for conflict-afflicted Libya, Lebanon, the Syrian Arab Republic, and the Republic of Yemen remains highly uncertain, though they are expected to experience further economic contraction in 2024.<sup>7</sup>

In 2025, MENA is expected to grow at 3.8 percent. Growth in GCC countries is expected to strengthen to 4.2 percent in 2025, up from 1.9 percent in 2024, driven by the gradual phasing-out of voluntary oil production cuts starting from December 2024. Growth in developing oil exporters is projected to accelerate to 3.3 percent in 2025, from 2.7 percent in 2024. Meanwhile, growth in developing oil importers (excluding the Arab Republic of Egypt) is expected to improve from 1.3 percent in 2024 to 3.4 percent in 2025, while the Arab Republic of Egypt’s growth is expected to accelerate to 3.5 percent in fiscal year 2025 from 2.5 percent in fiscal year 2024.

<sup>5</sup> OPEC is the Organization of the Petroleum Exporting Countries (Algeria, Equatorial Guinea, Gabon, the Islamic Republic of Iran, Iraq, Kuwait, Libya, Nigeria, the Republic of the Congo, Saudi Arabia, the United Arab Emirates and Venezuela). OPEC+ adds a number of other oil producers that signed an agreement with OPEC, the largest of which is Russia.

<sup>6</sup> In June 2024, oil production cuts agreed upon among OPEC+ members were extended by a year until the end of 2025. On September 5, 2024, a total of eight OPEC+ members, including Saudi Arabia, Russia, Iraq, the United Arab Emirates, Kuwait, Kazakhstan, Algeria, and Oman agreed to extend their additional voluntary production cuts of 2.2 million barrels per day until the end of November 2024. The cuts will be gradually phased out on a monthly basis starting December 1, 2024.

<sup>7</sup> The growth projections for Lebanon, reported in Table II.2, precede the recent significant escalation of conflict in Lebanon, as of September 2024.

The conflict in the Middle East, centered in Gaza, poses significant downside risks to the outlook. The current growth forecasts for 2024 and 2025 (Table II.2) are made under the assumption that the conflict will not worsen. However, escalating conflict could lead to negative spillovers both within the region and globally. Heightened geopolitical tensions could harm neighboring countries' economies by undermining growth prospects through increased uncertainty, reduced business and consumer confidence, declining tourism, capital outflows, and tighter financial conditions. Chapter III of this report discusses the repercussions of the ongoing conflict on Gaza and the West Bank and on the region.

**Table II.1.** 2024 real GDP forecasts by editions of the MENA Economic Update.

	October 2023	April 2024	October 2024
MENA	3.5	2.7	2.2
Oil Exporters	3.5	2.8	2.2
Gulf Cooperation Council	3.6	2.8	1.9
Developing Oil Exporters	3.4	2.8	2.7
Developing Oil Importers	3.4	2.5	2.1

Source: World Bank, *Macro Poverty Outlook*.

Note: GCC = Gulf Cooperation Council (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, the United Arab Emirates). Developing oil exporters = Algeria, the Islamic Republic of Iran, Iraq. Developing oil importers = Djibouti, the Arab Republic of Egypt, Jordan, Morocco, Tunisia, the West Bank and Gaza. Data for the Arab Republic of Egypt are for fiscal years (beginning on July 1 and ending June 30). Numbers are as of October 2, 2024.

Downward revisions to the 2024 growth forecasts for the MENA region by World Bank economists reflect the highly turbulent environment the region is currently navigating (Table II.1). Projected growth in MENA in 2024 has been revised downward by 0.5 percentage points since the April 2024 edition of the Economic Update (Gatti et al., 2024) and by 1.3 percentage points since the October 2023 edition (Gatti et al., 2023a). These downgrades partly reflect the extension of OPEC+ oil production cuts and increased uncertainty due to the conflict in the Middle East.

## Real GDP per capita: Modest improvements in standards of living amidst high uncertainty

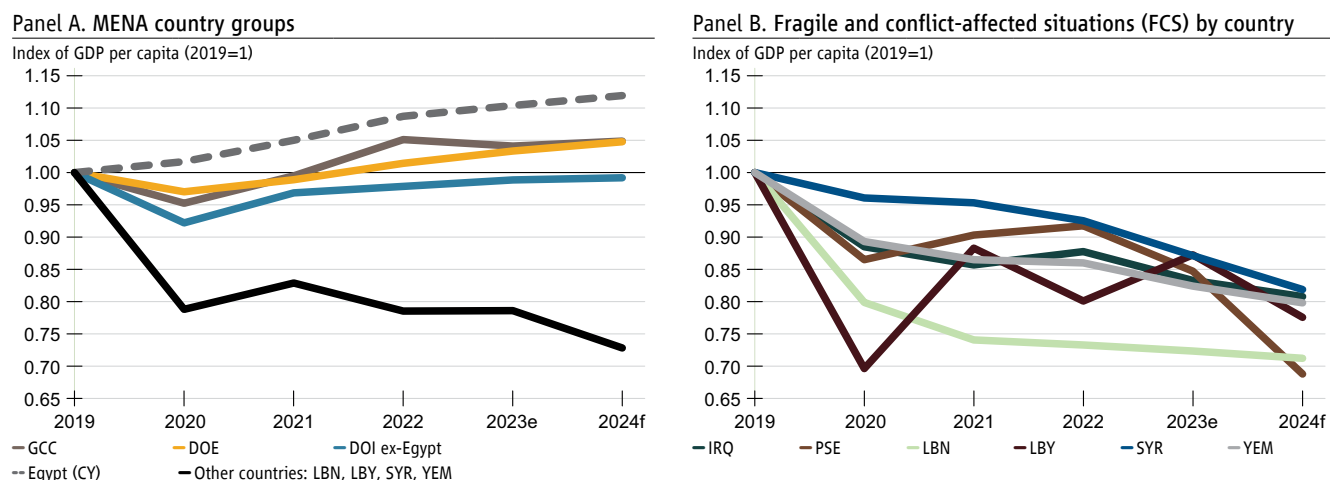
Real GDP per capita growth arguably better reflects changes in standards of living than real GDP growth. In 2024, population growth in the region is expected to average 1.3 percent, roughly unchanged from last year's 1.4 percent growth. Population growth in developing MENA countries in 2024 will slightly outpace that of the GCC. In 2024, population growth is projected to average 1.3 percent in both developing oil exporters and developing oil importers, and 1.2 percent in GCC countries. As a result, GDP per capita in MENA is expected to grow by a modest 0.9 percent in 2024, an improvement from the 0.5 percent in 2023. This growth is primarily driven by the GCC, where real GDP per capita is projected to grow by 0.7 percent in 2024 after contracting by 1 percent in 2023 (Table 2.2). Bahrain and the United Arab Emirates are expected to lead with 2024 real GDP per capita growth rates of 2.6 percent and 2.5 percent, driven by robust growth in the non-oil sector.

By the end of 2024, 10 out of 15 MENA countries (excluding Libya, Lebanon, the Syrian Arab Republic, and the Republic of Yemen) are expected to return to their 2019 real GDP per capita level. Iraq, Tunisia, the West Bank and Gaza, Kuwait, and Qatar will still fall short. Conflict-afflicted Libya, Lebanon, the Syrian Arab Republic, and the Republic of Yemen are the furthest from recovering their pre-pandemic GDP per capita levels (Figure II.6, Panel A). Notably, the West Bank and Gaza are projected to be 29 percent below their 2019 real GDP per capita level (Figure II.6, Panel B).

**Table II.2.** Actual and projected real GDP growth, real GDP per capita growth, current account balance, and fiscal account balance in the Middle East and North Africa, by economy, 2022–25.

	Real GDP Growth					Real GDP per capita Growth					Current Account Balance					Fiscal Balance				
	percent					percent					percent of GDP					percent of GDP				
	2022	2023e	2024f	2025f		2022	2023e	2024f	2025f		2022	2023e	2024f	2025f		2022	2023e	2024f	2025f	
<b>MENA</b>	5.8	1.8	2.2	3.8		4.4	0.5	0.9	2.5		10.5	5.3	2.9	3.1		3.0	-1.4	-2.0	-2.5	
<b>Middle-Income MENA</b>	4.4	3.2	2.4	3.4		3.0	1.8	1.1	2.1		3.6	1.8	-1.7	-2.1		-1.5	-3.8	-4.6	-5.6	
<b>Oil Exporters</b>	6.0	1.4	2.2	3.9		4.6	0.1	0.9	2.6		14.0	6.8	4.4	4.4		5.1	-0.6	-1.5	-1.8	
<b>Gulf Cooperation Council</b>	7.2	0.5	1.9	4.2		5.7	-1.0	0.7	2.9		15.7	8.1	6.6	7.4		6.3	0.5	0.2	0.1	
Qatar	4.2	1.2	2.0	2.7		-4.5	-3.1	2.3	1.2		26.8	17.1	14.5	14.1		10.4	5.6	4.2	4.6	
United Arab Emirates	7.9	3.2	3.3	4.1		7.0	2.4	2.5	3.4		11.7	9.2	7.5	7.4		10.8	5.1	4.9	4.7	
Bahrain	6.0	3.0	3.5	3.3		5.3	2.1	2.6	2.4		14.6	5.9	7.3	6.7		-5.4	-10.4	-9.1	-9.4	
Kuwait	6.3	-3.6	-1.0	2.5		5.8	-4.5	-1.9	1.7		32.4	26.2	21.6	20.2		12.5	-4.8	-5.8	-8.1	
Saudi Arabia	7.5	-0.8	1.6	4.9		6.1	-2.2	0.2	3.5		13.7	4.0	3.0	4.8		2.5	-2.0	-2.0	-1.8	
Oman	9.6	1.3	0.7	2.7		8.2	-0.2	-0.7	1.3		5.1	1.4	1.7	2.7		10.1	6.6	4.5	3.8	
<b>Developing Oil Exporters</b>	3.9	3.2	2.7	3.3		2.6	1.9	1.4	2.0		9.8	4.1	0.0	-1.3		2.0	-2.7	-4.8	-5.5	
Islamic Republic of Iran	3.8	5.0	3.7	2.9		3.0	4.3	2.9	2.2		3.4	2.0	1.2	1.0		-2.8	-3.4	-2.1	-2.5	
Algeria	3.6	4.1	3.1	3.8		1.9	2.5	1.6	2.4		8.6	2.3	-1.2	-3.1		-3.0	-5.2	-9.8	-9.9	
Iraq	4.7	-2.9	-0.9	4.0		2.4	-5.1	-3.0	1.7		21.2	9.7	-1.4	-4.1		14.1	0.9	-5.3	-7.4	
<b>Developing Oil Importers</b>	5.0	3.2	2.1	3.5		3.6	1.8	0.7	2.1		-4.2	-1.7	-4.3	-3.5		-5.9	-5.6	-4.3	-5.8	
Arab Republic of Egypt	6.6	3.8	2.5	3.5		4.9	2.2	0.9	1.9		-3.5	-1.2	-5.3	-3.9		-6.2	-6.0	-3.6	-7.0	
Tunisia	2.7	0.0	1.2	2.2		1.9	-0.8	0.3	1.4		-8.7	-2.6	-2.3	-2.0		-6.7	-6.8	-6.0	-4.3	
Jordan	2.6	2.7	2.4	2.6		1.4	2.2	1.9	2.1		-7.8	-3.7	-4.8	-4.6		-5.6	-5.1	-5.3	-5.0	
Morocco	1.5	3.4	2.9	3.9		0.5	2.4	1.9	2.9		-3.6	-0.6	-1.0	-1.3		-5.4	-4.4	-4.2	-3.8	
Djibouti	3.7	6.7	5.9	5.3		2.3	5.2	4.5	3.9		17.9	15.6	14.4	13.5		0.2	0.2	-0.5	0.6	
West Bank and Gaza	4.1	-5.4	-17.1	5.5		1.6	-7.6	-18.8	3.2		-10.6	-16.6	-18.1	-17.9		-1.8	-3.9	-12.0	-8.7	
<b>Other countries</b>																				
Libya	-8.3	10.2	-10.1	10.7		-9.3	8.9	-11.1	9.5		21.2	3.0	-21.8	-5.7		2.7	-0.1	-5.7	1.9	
Lebanon	-0.6	-0.8	-1.0	NP		-1.1	-1.3	-1.5	NP		-34.6	-28.1	-20.0	NP		-2.9	0.5	0.2	NP	
Syrian Arab Republic	0.7	-1.2	-1.5	-1.0		-2.9	-5.9	-6.0	-4.6		NP	NP	NP	NP		-4.6	-4.3	-4.1	-3.8	
Republic of Yemen	1.5	-2.0	-1.0	1.5		-0.6	-4.2	-3.2	-0.7		-17.7	-20.3	-25.0	-25.7		-2.7	-6.1	-3.5	-4.0	

Source: World Bank staff calculations based on data from the World Bank's *Macro Poverty Outlook*, October 2024.  
 Note: e = estimate, f = forecast and NP = not presented. Countries are listed in descending order based on 2023 GDP per Capita (constant 2021 PPPs) within each category. Data are rounded up to a single digit. Data for the Arab Republic of Egypt are for fiscal years (beginning on July 1 and ending June 30). Other countries = Lebanon, Libya, Syrian Arab Republic, and the Republic of Yemen, which are excluded from MENA regional and sub-regional averages due to uncertain values. Middle Income MENA includes the Islamic Republic of Iran, Algeria, Iraq, the Arab Republic of Egypt, Tunisia, Jordan, Morocco, the West Bank and Gaza and Djibouti. The macroeconomic forecasts for Iraq presented in this table are based on the World Bank estimations of real GDP at constant market prices. For the years between 2023 and 2025, real GDP growth rates and real GDP per capita growth rates are identical to those at constant factor prices. The constant market prices and the constant factor prices series for real GDP growth and real GDP per capita growth rates marginally differ for the year 2022. Iraq's current account balance and the fiscal account balance (as percent of GDP) at constant market prices differ marginally from those at constant factor prices. Real GDP growth regional and sub-regional weighted averages are calculated using previous year real GDP as weights. Real GDP per capita growth regional and sub-regional weighted averages are calculated by finding real GDP per capita for each category, then calculating yearly growth rates. Current account balance and fiscal balance regional and sub-regional averages are calculated using current year nominal GDP levels as weights. Numbers are updated as of October 2, 2024.

**Figure II.6.** Index of real GDP per capita levels in 2019–2024.

Source: World Bank staff calculations, based on data from the *Macro Poverty Outlook (MPO)*, October 2024.

Note: e = estimate, f = forecast. MENA = Middle East and North Africa (Algeria, Bahrain, Djibouti, the Arab Republic of Egypt, the Islamic Republic of Iran, Iraq, Jordan, Kuwait, Morocco, Oman, Qatar, Saudi Arabia, Tunisia, the United Arab Emirates, and the West Bank and Gaza). The Gulf Cooperation Council = Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. Developing oil exporters = Algeria, the Islamic Republic of Iran, and Iraq. Developing oil importers excluding the Arab Republic of Egypt = Djibouti, Jordan, Morocco, Tunisia, and the West Bank and Gaza. Other countries = Libya, Lebanon, the Syrian Arab Republic, and the Republic of Yemen. LBN = Lebanon. LBY = Libya. SYR = The Syrian Arab Republic. YEM = The Republic of Yemen. IRQ = Iraq. PSE = The West Bank and Gaza. Panel A. Real GDP estimates for the Arab Republic of Egypt correspond to calendar years. Panel B. Fragile and Conflict-Affected Situations (FCS) = Iraq, Libya, Lebanon, the Syrian Arab Republic, the Republic of Yemen, and the West Bank and Gaza. Regional and subregional rebased real GDP per capita levels were calculated as the sum of real GDP of each group category divided by the sum of its population. All values are rebased to 2019 (with 2019=1). Numbers are updated as of October 2, 2024.

## Poverty in MENA: A troubling increase across the region

Economic growth must be inclusive to improve living standards for everyone, including the poor and vulnerable. This requires that the poorest segments of the population do at least as well as the overall population (Ravallion, 2004).

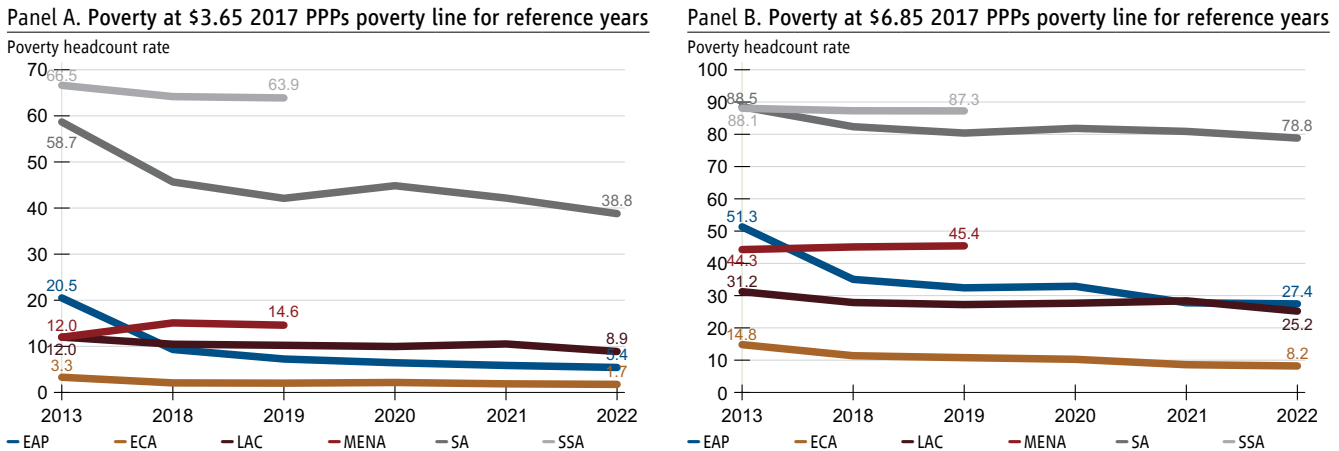
Since 1990, the World Bank has monitored poverty using an international poverty line currently defined as \$2.15 per capita daily in 2017 purchasing power parities (PPPs).<sup>8</sup> In addition to the international poverty line, the World Bank uses two higher poverty lines to measure and monitor poverty in higher income countries that have a lower incidence of extreme poverty: a \$3.65 per day line (2017 PPPs) for lower-middle-income countries and a \$6.85 per day line (2017 PPPs) for upper-middle-income countries. Few countries have survey estimates of poverty available every year. To estimate poverty at the regional and global level, the survey estimates need to be aligned to a reference year and aggregated.<sup>9</sup> One important rule for displaying regional estimates for a given reference year is that data must cover 50 percent of the region's population.

The World Bank currently reports poverty rates for the 2022 reference year. As can be seen in Figure II.7, the latest estimates for the MENA region are available only for 2019 because of inadequate population coverage in more recent years. Despite challenges with data and inconsistencies in survey comparability over time, recent trends show a troubling rise in poverty across the MENA region even before the COVID-19 pandemic. The MENA region was the only one in which poverty increased at both the lower-middle and upper-middle income thresholds (Figure II.7). Poverty at the \$3.65 line (2017 PPPs) rose from 12 percent to 14.6 percent between the 2013 and 2019 reference years, while poverty at the \$6.85 per day line (2017 PPPs) rose from 44.3 percent to 45.4 percent.

<sup>8</sup> The international poverty line is the median of harmonized national poverty lines for low-income countries.

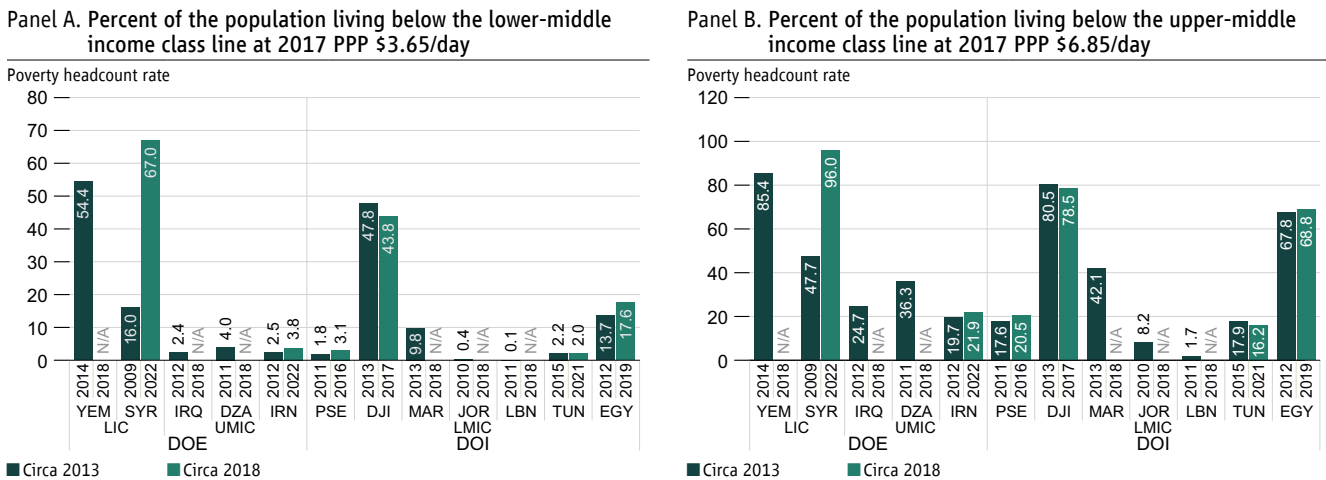
<sup>9</sup> For countries that do not have welfare aggregates for a specific reference year, but that do have earlier welfare aggregates available, their most recent aggregate is extrapolated forward using growth rates from national accounts, either real GDP per capita or real household final consumption expenditure per capita.

Figure II.7. Regional poverty estimates.



Source: World Bank (2024), *Poverty and Inequality Platform* (version 20240627\_2017\_01\_02\_PROD), accessed September 23, 2024.  
 Note: EAP = East Asia and the Pacific. ECA = Europe and Central Asia. LAC = Latin America and the Caribbean. MENA = Middle East and North Africa. SA = South Asia. SSA = Sub-Saharan Africa. The graph shows the trend in poverty headcount ratio at \$3.65 a day (lower-middle income class line) and \$6.85 a day (upper-middle income class line) at 2017 PPP for reference years. The poverty headcount ratio at \$3.65 a day is the percentage of the population living on less than \$3.65 a day at 2017 PPP (Panel A) and poverty headcount ratio at \$6.85 a day is the percentage of the population living on less than \$6.85 a day at 2017 PPP (Panel B).

Figure II.8. Poverty in MENA.



Source: World Bank (2024), *Poverty and Inequality Platform* (version 20240627\_2017\_01\_02\_PROD), accessed September 23, 2024.  
 Note: N/A = not available. YEM = The Republic of Yemen. SYR = The Syrian Arab Republic. IRQ = Iraq. DZA = Algeria. IRN = The Islamic Republic of Iran. PSE = the West Bank and Gaza. DJI = Djibouti. MAR = Morocco. JOR = Jordan. LBN = Lebanon. TUN = Tunisia. EGY = The Arab Republic of Egypt. DOE = developing oil exporters (Algeria, the Islamic Republic of Iran, Iraq, the Syrian Arab Republic). DOI = developing oil importers (Djibouti, the Arab Republic of Egypt, Jordan, Lebanon, Morocco, Tunisia, and the West Bank and Gaza). UMIC = upper middle-income countries (Algeria, the Islamic Republic of Iran, Iraq). LMIC = lower middle-income countries (Djibouti, the Arab Republic of Egypt, Jordan, Lebanon, Morocco, Tunisia and the West Bank and Gaza). LIC = low-income countries (the Syrian Arab Republic and the Republic of Yemen). Countries are ordered in ascending 2023 GDP per capita (2021 constant PPP) within income classification and MENA country categorization.

Of the countries in the MENA region with available survey data around 2019 (Djibouti, the Arab Republic of Egypt, the Islamic Republic of Iran, the Syrian Arab Republic, Tunisia, and the West Bank and Gaza), all had an increase in poverty estimates at both the lower-middle and upper-middle income thresholds—except Tunisia and Djibouti, which had small declines at both poverty thresholds (Figure II.8). In the Arab Republic of Egypt, poverty at the lower-middle income line rose from 13.7 percent in 2012 to 17.6 percent in 2019—partly driven by a devaluation of the Egyptian pound, rising inflation, and the erosion of real incomes. In the Syrian Arab Republic, the 2011 civil war led to a sharp increase in poverty at the lower-middle income threshold, from 16 percent in 2009 to 67 percent in 2022. In the West Bank and Gaza, even before the current conflict, poverty at the lower-middle income threshold increased from 1.8 percent in 2011 to 3.1 percent in 2016, while at the upper-middle income threshold, it rose from 17.6 percent to 20.5 percent over the same period. Poverty in the Islamic Republic of Iran also increased at both income thresholds, with poverty at the upper-middle income threshold rising from 19.7 percent in 2012 to 21.9 percent in 2022.

### Box II.1. Poverty data limitations in the MENA region.

Poverty is measured using household per capita consumption or income data from nationally representative household surveys. Despite improvements in public access to microdata, the availability of household budget surveys is poor in the MENA region. Lack of data timeliness and lack of sharing further compound availability issues (Atamanov et al. 2020, Ekhatov-Mobayode and Hoogeveen 2021).

To illustrate data issues, Table BII.1 shows the availability and access status of the household budget surveys in the MENA region between roughly 2013 and 2022. Besides reporting years of the surveys collected closest to 2013 and 2022, the table also highlights the access status to the data.

Thirteen countries in the region (Algeria, Djibouti, the Arab Republic of Egypt, the Islamic Republic of Iran, Iraq, Jordan, Lebanon, Libya, Morocco, the Syrian Arab Republic, Tunisia, the West Bank and Gaza, the Republic of Yemen) had surveys collected around 2013, and all but Libya shared the data with the World Bank. However, the Bank's ability to measure poverty after the COVID-19 pandemic is severely constrained.

Nine of the thirteen MENA countries collected household budget surveys after the pandemic year of 2020, but access to microdata differs across the countries. While there is a productive collaboration with statistical agency counterparts in the Arab Republic of Egypt, Libya, and Morocco, available microdata needed to calculate poverty rates for more recent years are not publicly available for research and public policy purposes. Data from Iraq, Lebanon, and the West Bank and Gaza are accessible to the World Bank and will be included in the calculation of regional poverty during the next update of the Poverty and Inequality Platform in March/April 2025.<sup>10</sup> No post-COVID-19 household budget surveys were collected in Algeria, Jordan, and the Republic of Yemen.

**Table BII.1.** Availability and access to household budget surveys at the World Bank circa 2013 and 2022 years.

	circa 2013	circa 2022
Algeria	2011	
Djibouti	2013	2017
Arab Republic of Egypt	2012	2021
Islamic Republic of Iran	2013	2022
Iraq	2012	2023
Jordan	2010	2017
Lebanon	2011	2022
Libya	2007	2022
Morocco	2013	2022
Syrian Arab Republic	2009	2022
Tunisia	2015	2021
West Bank and Gaza	2011	2023
Republic of Yemen	2014	

*Source:* World Bank staff compilations.

*Note:* Green indicates that the data are available to the World Bank. Yellow indicates that the data are available to the World Bank but not yet included in the estimation of the poverty rates. Red indicates that the survey exists, but the data are not accessible.

<sup>10</sup> To include the data in the calculation of international poverty in the MENA region, the World Bank always tries to use official consumption aggregates, which are used to monitor national poverty rates. The most recent data from Iraq, Lebanon, and the West Bank and Gaza will be included in early 2025.

Little is known about changes in poverty during and after the COVID-19 due to the lack of household budget surveys after 2020, as highlighted in Box II.1. Nevertheless, Hoozeveen and Lopez-Acevedo (2021) used phone surveys to show that COVID-19 has had unequal impacts in the region—often disproportionately affecting the poor and vulnerable. According to poverty simulations in Mahler and Lakner (2022), the poverty rate at the \$2.15 line (2017 PPPs) might have increased by 0.3–0.4 percentage points in 2020 because of COVID-19. The poverty rate at the \$3.65 line (2017 PPPs) might have increased by 0.1–0.8 percentage points, and the poverty rate at the \$6.85 line (2017 PPPs) might have increased by 2.2–2.3 percentage points. According to the *Poverty, Prosperity and Planet Report 2024*, extreme poverty in MENA is also projected to rise through 2030, primarily driven by the highly uncertain growth outlooks for the Syrian Arab Republic and the Republic of Yemen (World Bank, 2024f).<sup>11</sup>

## Current account and fiscal account balances: Hydrocarbons shape oil exporters' balances, while developing oil importers battle twin deficits

The current account and fiscal balances for GCC countries are expected to be strongly influenced by oil prices and production levels in 2024. Despite ongoing diversification efforts, hydrocarbon revenues will remain crucial to shaping the regional outlook for the GCC (World Bank, 2024c).<sup>12</sup> The extension of OPEC+ oil production cuts through the end of 2025—coupled with relatively low oil prices in 2024 compared to 2022—is expected to lead to current account and fiscal account balances significantly below the high levels of 2022 for most MENA oil-exporters (both GCC and developing oil-exporting countries).

For GCC economies, the current account surplus is projected to decrease from 8.1 percent of GDP in 2023 to 6.6 percent in 2024.<sup>13</sup> Although all GCC countries have consistently maintained current account surpluses in both years, most are expected to have a decline in 2024. In Saudi Arabia, the current account surplus is projected to narrow to 3.0 percent in 2024 from 4.0 percent of GDP in 2023 due to heightened volatility in oil exports. The United Arab Emirates' current account surplus is also expected to decline to 7.5 percent in 2024 down from 9.2 percent of GDP in 2023, despite continued diversification efforts. In Qatar, the current account surplus is also expected to decline but should remain robust at 14.5 percent of GDP in 2024, supported by a growing tourism sector.

Fiscal surpluses among GCC countries are expected to narrow, reaching 0.2 percent of GDP in 2024, down from 0.5 percent in 2023, and 6.3 percent in 2022 (Table II.2). Individual country outlooks will diverge in 2024: Bahrain, Kuwait, and Saudi Arabia are projected to run fiscal deficits, while Oman, Qatar, and the United Arab Emirates will maintain surpluses. Saudi Arabia's deficit is projected to remain stable at 2 percent of GDP because of lower oil revenues and an expansionary fiscal policy. Kuwait's deficit, forecast at 5.8 percent of GDP, is driven by rising expenditures—particularly on salaries, grants, and subsidies—underpinned by weak economic diversification. Bahrain's deficit is expected to slightly shrink to 9.1 percent of GDP in 2024, benefiting from higher non-oil revenues and ongoing fiscal consolidation. In contrast, Qatar and the United Arab Emirates are expected to sustain fiscal surpluses of 4.2 percent of GDP and 4.9 percent of GDP, respectively. Qatar's surplus will be supported by stable gas revenues secured through long-term contracts, while the United Arab Emirates' will benefit from the expansion of non-oil revenues.

<sup>11</sup> MENA is the only region in which eradication of extreme poverty (at 2017 PPP \$2.15 per day) has reversed. Poverty rates increased after 2014 because of factors such as inflation, heightened fragility and conflict, limited job creation, and shocks like the pandemic (World Bank, 2024f).

<sup>12</sup> Despite efforts to diversify non-oil revenues through taxes and fees, these revenues still fall short of offsetting declines in oil income. However, the broadening of GCC tax systems is continuing. For example, Bahrain raised its value-added tax (VAT) to 10 percent in 2022, Saudi Arabia maintained its 15 percent VAT, and the United Arab Emirates introduced a 9 percent federal corporate tax in July 2023 (World Bank, 2024c).

<sup>13</sup> The current account balance is the sum of net income from abroad, net transfers, and the trade balance.

The current account balance for developing oil exporters is projected to reach zero percent of GDP in 2024, from a surplus of 4.1 percent in 2023 and 9.8 percent in 2022 (Table II.2). Similar to the GCC countries, the decline reflects lower hydrocarbon revenues. The fiscal balance in developing oil-exporters in MENA is also expected to worsen, with the deficit increasing from 2.7 percent in 2023 to 4.8 percent in 2024. Both Algeria and Iraq are expected to experience widening fiscal deficits in 2024 because of increased government spending.<sup>14</sup>

In 2024, the current account balances of virtually all MENA developing oil-importing countries are in deficit—projected to reach 4.3 percent of GDP, a significant increase from the 1.7 percent deficit recorded in 2023. Djibouti is the sole exception within this group, projecting a current account surplus of 14.4 percent in 2024, driven by increased Ethiopian imports through Djibouti. All other MENA oil importers—the Arab Republic of Egypt, Tunisia, Jordan, Morocco, and the West Bank and Gaza—are forecast to post current account deficits this year. Specifically, the Arab Republic of Egypt’s current account deficit is set to widen to 5.3 percent of GDP in fiscal year 2024, from a 1.2 percent deficit in fiscal year 2023. The widening deficit is largely driven by an expanding trade deficit, resulting from a reduction in oil exports coupled with an increase in non-oil imports, as well as decreased revenue from reduced shipping through the Suez Canal. Additionally, Morocco’s current account deficit is projected to increase to 1 percent of GDP in 2024, up from a 0.6 percent deficit in 2023, which was the lowest since 2007. This anticipated widening is primarily due to a surge in cereal imports caused by a drought-related decline in domestic production.

All developing oil importers are projected to face fiscal deficits as well in 2024. As a group, their fiscal deficit is projected to be 4.3 percent of GDP in 2024, an improvement from 5.6 percent deficit in 2023. The Arab Republic of Egypt’s fiscal deficit is anticipated to decline to 3.6 percent in fiscal year 2024 from 6 percent in fiscal year 2023. This improvement is primarily due to the one-off recording of the EGP equivalent of half of the fresh inflows from the Ras El-Hekma deal, amounting to US\$12 billion into fiscal revenues.<sup>15</sup> This exceptional revenue boost has outweighed the constrained fiscal space caused by high interest payments and low domestic tax revenue, which reflects ongoing challenges in consumption and economic activity, especially affecting value-added tax revenues. Morocco’s fiscal deficit is also expected to slightly improve—declining to 4.2 percent of GDP in 2024, from 4.4 percent in 2023, as the country continues fiscal consolidation efforts, focusing on the mobilization of tax and non-tax revenues and the gradual removal of butane and gas subsidies (World Bank, 2024e).

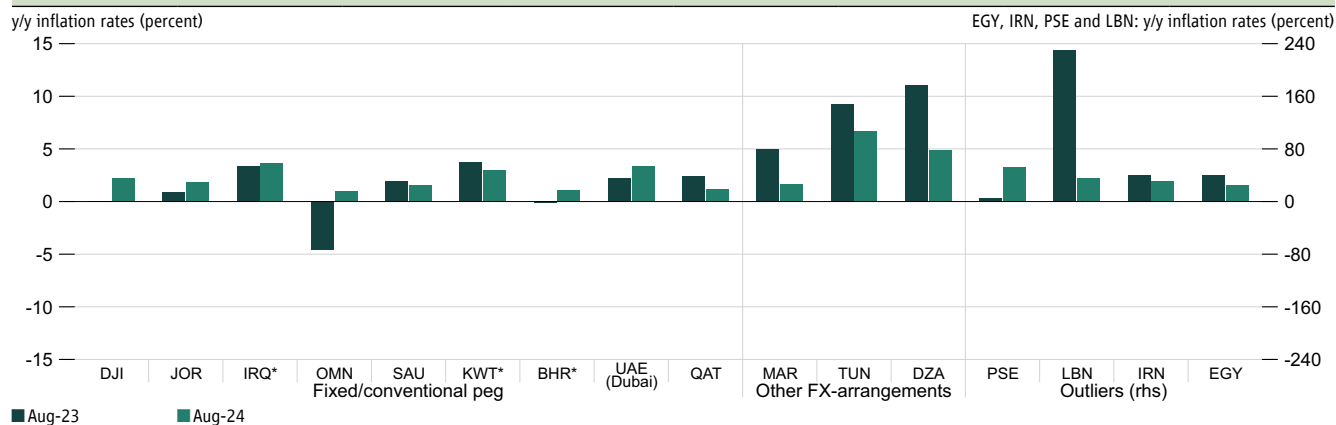
## Inflation in MENA: Inflation shows overall easing, but high levels persist in some countries

Inflation in the MENA region is easing, reflecting the global trend of moderating price increases. In 2023, inflation in the region decreased to 3.6 percent from 5 percent in 2022 and is projected to further decline to 2.2 percent in 2024 (Table II.3).

Yet, there are important disparities within MENA. Inflation has been well contained in GCC countries, which maintain pegged exchange rates, while inflation has been elevated in other developing oil exporters, particularly, the Islamic Republic of Iran, and in some developing oil importers—notably, the Arab Republic of Egypt, Lebanon, and the West Bank and Gaza (Figure II.9).

<sup>14</sup> The projected fiscal account deficit (as percent of GDP) for Iraq in Table II.2 is based on World Bank estimations of real GDP at constant market prices. For the year 2024, Iraq’s fiscal account is in deficit of 5.3 percent of GDP using constant market prices, comparable to estimates using real GDP at constant factor prices (a deficit of 5.6 percent of GDP in 2024).

<sup>15</sup> This is a real estate development agreement between the Arab Republic of Egypt and the United Arab Emirates involving FDI inflows of US\$24 billion during fiscal year 2023/24, focusing on the coastal area of Ras El-Hekma. The deal aims to boost tourism and economic growth through the construction of luxury resorts, residential units, and commercial facilities.

**Figure II.9.** Inflation in MENA by country groupings of exchange rate regimes (y/y inflation August 2024, August 2023)

Sources: World Bank staff calculations based on Haver Analytics and National Statistics Offices.

Note: DJI = Djibouti, JOR = Jordan, IRQ\* = Iraq, OMN = Oman, SAU = Saudi Arabia, KWT\* = Kuwait, BHR\* = Bahrain, UAE = the United Arab Emirates, QAT = Qatar, MAR = Morocco, TUN = Tunisia, DZA = Algeria, PSE = The West Bank and Gaza, LBN = Lebanon, IRN = The Islamic Republic of Iran, EGY = The Arab Republic of Egypt. National Statistics Offices Consumer Price Indices (CPI) releases, as of October 2, 2024. The figure shows year-on-year headline inflation in August 2023 and August 2024 for countries with available data. Countries highlighted with an asterisk have the latest datapoint as of July 2024 and are compared to July 2023. Within each currency system category, countries are ordered in ascending 2023 GDP per capita (2021 constant PPP). The Arab Republic of Egypt, the Islamic Republic of Iran, Lebanon, and the West Bank and Gaza are presented on the secondary Y-axis. Dubai is used as a proxy for the United Arab Emirates because of a lack of monthly CPI data for the entire United Arab Emirates in recent months.

**Table II.3.** Inflation in the Middle East and North Africa, by economy, 2022–2025.

	Inflation			
	2022	percent		
		2023e	2024f	2025f
<b>MENA</b>	<b>5.0</b>	<b>3.6</b>	<b>2.2</b>	<b>2.7</b>
<b>Gulf Cooperation Council</b>	<b>3.8</b>	<b>2.0</b>	<b>1.7</b>	<b>2.0</b>
Qatar	5.0	3.1	1.3	1.9
United Arab Emirates	4.8	1.6	2.2	2.1
Bahrain	3.6	0.1	1.3	1.5
Kuwait	4.0	3.6	3.1	2.7
Saudi Arabia	2.5	2.3	2.1	2.3
Oman	2.5	0.9	1.0	1.4
<b>Developing Oil Exporters</b>	<b>9.3</b>	<b>9.3</b>	<b>4.0</b>	<b>4.9</b>
Islamic Republic of Iran	46.5	52.3	31.9	30.0
Algeria	9.3	9.3	4.0	4.9
Iraq	5.0	4.4	3.7	3.3
<b>Developing Oil Importers</b>	<b>5.9</b>	<b>6.0</b>	<b>5.0</b>	<b>2.6</b>
Arab Republic of Egypt	8.5	24.1	33.6	17.2
Tunisia	8.3	9.3	7.0	6.0
Jordan	4.2	2.1	2.0	2.2
Morocco	6.6	6.1	1.5	2.7
Djibouti	5.1	1.4	3.0	1.8
West Bank and Gaza	3.7	5.9	35.8	2.5
<b>Other Countries</b>				
Libya	4.6	2.3	2.5	2.4
Lebanon	171.2	221.3	45.7	NP
Syrian Arab Republic	63.7	92.5	37.7	11.3
Republic of Yemen	29.5	0.9	16.3	20.7

Source: World Bank, *Macro Poverty Outlook*, October 2024.

Note: e = estimate, f = forecast, NP = not presented. Regional and subregional figures are based on the median of the countries in each group. Data are rounded to a single decimal place. Data for the Arab Republic of Egypt are for fiscal years (beginning on July 1 and ending June 30). In the table, countries within each group are ranked in descending order by 2023 GDP per capita (constant 2021 PPPs). Numbers are updated as of October 2, 2024.

In the GCC, inflation is projected to ease to 1.7 percent in 2024, from 2.0 percent in 2023 and 3.8 percent in 2022 (Table II.3). In 2023, inflationary pressures in the GCC were effectively managed through proactive monetary policies in line with the U.S. Federal Reserve’s monetary tightening. In 2024, inflation in Kuwait decreased to 3.1 percent, driven by monetary policy adjustments. In Qatar, inflation has also eased, supported by government subsidies and lower commodity prices. Conversely, in the United Arab Emirates, inflation has increased to 2.2 percent in 2024 driven by a rise in housing and utilities costs. Central banks in GCC countries eased their policy rates in September 2024, following the U.S. Federal Reserve’s decision to lower its benchmark federal funds rate. Inflation has declined in all developing oil exporters, but it remains high in the Islamic Republic of Iran—where it was 31.9 percent in fiscal year 2024, from 52.3 percent in fiscal year 2023.

For developing oil importers, inflation decreased from an average of 6 percent in 2023 to 5 percent in 2024. Starting from high levels, inflation in the Arab Republic of Egypt has been on a declining trend. As of August 2024, inflation in the Arab Republic of Egypt was 25.6 percent after averaging 33.6 percent in fiscal year 2024 and 24.1 percent in fiscal year 2023.<sup>16</sup> This decline in inflation follows the Central Bank of Egypt’s decision in March 2024 to allow the local currency to depreciate against the dollar, unifying the exchange rate, and to increase key policy rates by 600 basis points (a basis is 1/100th of a percentage point) to anchor inflation expectations. In Tunisia, inflation fell from 9.3 percent in 2023 to 7.0 percent in 2024. However, food price inflation remains elevated in Tunisia, in part due to a drought-induced reduction in agricultural production and reduced imports—caused by tighter external financial conditions (World Bank, 2024d). In Morocco, inflation sharply decelerated from 6.1 percent in 2023 to 1.5 percent in 2024, contributing to Bank Al-Maghrib’s decision to cut policy rates in June 2024. In the West Bank and Gaza, inflation has soared to 53.2 percent in August 2024 from 4.9 percent in August 2023 (Figure II.9), driven by distinct underlying factors in Gaza and in the West Bank. In Gaza, the economic shock is primarily a supply-side disruption, stemming from severe constraints on the movement of goods and access to the Strip. This imbalance between supply and demand led to a dramatic inflation spike, reaching close to 250 percent in August 2024. Conversely, in the West Bank, the shock is predominantly demand driven. The primary transmission mechanism has been a significant loss of income in both the public sector (due to the fiscal crisis) and the private sector (due to increased restrictions on mobility and access to the Israeli labor market for Palestinian commuters); consequently, inflation in the West Bank remained relatively stable by mid-2024. Lebanon’s inflation, though still elevated, receded to 35 percent in August 2024 from 229.8 percent in August 2023. This decline is mostly due to having started from such a high level—inflation peaked in April 2023 following the central bank’s decision to devalue the official exchange rate for the first time since 1997, setting it at LBP 15,000 per U.S. dollar.

## Forecast revisions: Widespread growth downgrades with sharpest declines in fragile and conflict-affected situations

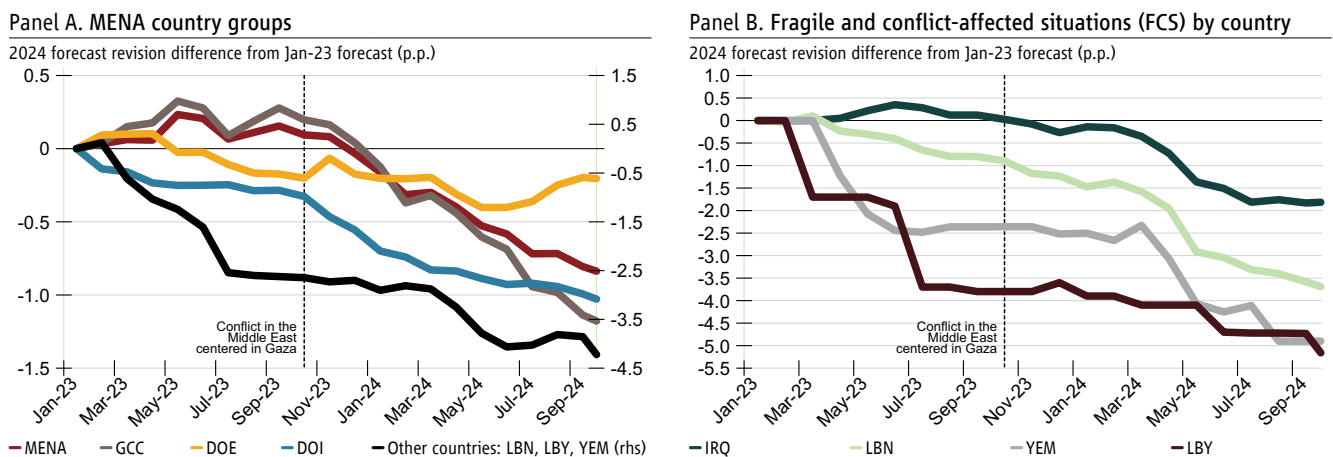
In 2023, the 2024 growth forecast for MENA (excluding Lebanon, Libya, the Syrian Arab Republic, and the Republic of Yemen) was initially revised upward by 0.2 percentage points in May, following the first OPEC+ oil production cuts announced in April. This revision reflected expectations of accelerated growth in oil-exporting economies, with the GCC forecast raised by 0.3 percentage points (Figure II.10, Panel A). However, forecasts were downgraded after additional deep production cuts were announced in June and November—private sector forecasters changed their expectations, after initially believing that the cuts would be short-lived.

<sup>16</sup> The Arab Republic of Egypt’s fiscal year begins on July 1st and ends on June 30. Fiscal year 2023 begins on July 1st, 2023, and ends on June 30, 2024.

Even before the Gaza-centered conflict in the Middle East, growth forecasts for developing oil importers were downgraded by 0.3 percentage points in September 2023 compared to January 2023 (Figure II.10, Panel A). These revisions reflected constrained economic activity, partly due to the ripple effects of tighter financial conditions.

After the onset of the conflict in the Middle East on October 7, 2023, private sector forecasts have been substantially revised downward among all country groups in the region. By December 2023, private sector forecasts for MENA were significantly downgraded but aligned with the projections from January 2023.<sup>17</sup> As of October 2024, growth forecasts for the region are 0.9 percentage points below the forecasts made in January 2023 (Figure II.10, Panel A). These additional downgrades partly reflect the extension of additional oil production cuts and a reassessment of the effects of the Gaza-centered conflict in the Middle East.

**Figure II.10.** Private sector forecasts revisions of 2024 real GDP growth since January 2023



Source: Authors' calculations based on Focus Economics consensus forecasts, forecasts from January 2023 to October 2024.

Note: The graph shows the difference in 2024 GDP growth rates forecast over time compared to forecasts made in January 2023. GCC = Gulf Cooperation Council (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, the United Arab Emirates). Developing oil exporters = Algeria, the Islamic Republic of Iran, and Iraq. Developing oil importers = The Arab Republic of Egypt, Djibouti, Jordan, Morocco, and Tunisia. MENA = Middle East and North Africa, which comprises countries in all three groups. Other countries = Libya, Lebanon, and the Republic of Yemen. FCS = Fragile and Conflict-Affected Situations, and includes Iraq, Libya, Lebanon, and the Republic of Yemen. LBN = Lebanon. LBY = Libya. YEM = Republic of Yemen. IRQ = Iraq. Focus Economics Forecasts do not include data for the West Bank and Gaza, and do not include real GDP growth for the Syrian Arab Republic. The Arab Republic of Egypt data for 2024 are adjusted fiscal year estimates transformed into calendar year estimates: the average of the FY2024 and FY2025 forecasts. The Arab Republic of Egypt's FY2024 started on July 1, 2023, and ended on June 30, 2024. MENA and other category averages are weighted growth rates using previous year GDP levels as the weights.

The conflict-afflicted Lebanon, Libya, and the Republic of Yemen have had the largest downgrades in private sector forecasts since the onset of the conflict in the Middle East centered in Gaza. By October 2024, the forecasts for these countries were downgraded by 4.5 percentage points from the January 2023 forecasts (Figure II.10, Panel A). Among fragile and conflict-affected situations, downgrades were the sharpest in Libya and the Republic of Yemen, where the October 2024 forecasts were about 5.5 percentage points and 4.9 percentage points below the January 2023 forecasts, respectively (Figure II.10, Panel B). These substantial downgrades highlight the highly volatile and uncertain outlook for these countries in 2024.<sup>18</sup>

In situations of conflict or natural disasters, nighttime light satellite data (NTL) may offer timely, granular, comprehensive, and potentially more reliable means of tracking economic activity than official statistics. These data are available daily and cover all of a country's territory. The recent *Syria Economic Monitor* (World Bank 2024g), for example, contrasts the contraction in GDP during a decade of conflict starting in 2010 between official statistics and NTL-based estimates of GDP. Whereas official statistics indicate a contraction of 54 percent during 2010–19, NTL data suggest a sharper 84 percent contraction. At the same time, nighttime gas flaring data analysis indicates significantly higher oil and gas

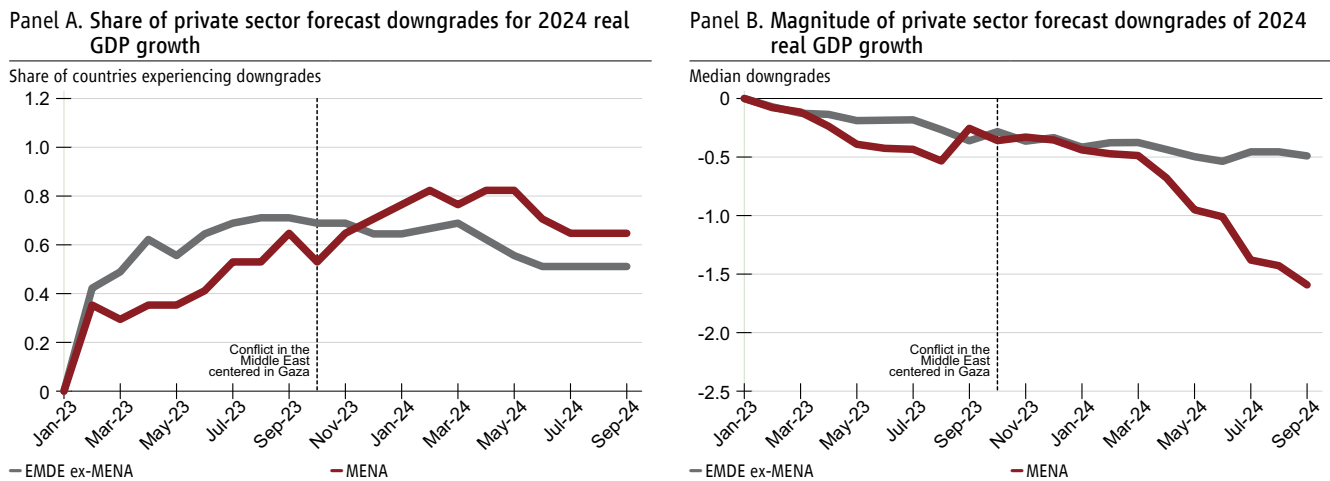
<sup>17</sup> This is because of an initial upgrade in the regional 2024 growth forecast for MENA by 0.2 percentage points in September 2023 compared to January 2023, which was reversed by December 2023.

<sup>18</sup> Consensus forecasts from Focus Economics do not include real GDP growth forecasts for either the West Bank and Gaza or Syrian Arab Republic.

output than official estimates, suggesting growth in informal and illicit economic activity within the energy sector that is not captured in official statistics.

A stark divergence in 2024 real GDP growth downgrades between MENA and EMDEs also underscores the uniquely turbulent environment in the MENA region. Between January and September 2023, the share of MENA countries experiencing downgrades in their 2024 real GDP growth forecasts, relative to January 2023, were consistently lower than that of other EMDEs (Figure II.11, Panel A). However, following the outbreak of the conflict, forecasts were downgraded for a growing proportion of MENA countries—at a rate consistently higher than for other EMDEs. By September 2024, GDP growth forecasts for 65 percent of MENA countries had been downgraded since January 2023, compared with 51 percent of other EMDEs.

**Figure II.11.** Share and magnitude of private sector forecast downgrades for 2024 real GDP growth since January 2023 among MENA countries and other EMDEs.



Sources: World Bank staff calculations based on Consensus Economics and Focus Economics.

Note: MENA = Middle East and North Africa (Algeria, Bahrain, Djibouti, the Arab Republic of Egypt, the Islamic Republic of Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Tunisia, the United Arab Emirates, and the Republic of Yemen). EMDE (ex-MENA) = emerging market and developing economies, excluding MENA countries, and comprises 45 economies. Focus Economics Forecasts do not include data for the West Bank and Gaza, and do not include real GDP growth for the Syrian Arab Republic. Private sector GDP growth forecast downgrades refer to 2024 real GDP growth forecasts made from January 2023 through September 2024. The share of downgrades was calculated by assigning a value of 1 to each month in which the GDP growth rate forecast for 2024 was below the January 2023 growth rate forecast. Months with equal or higher 2024 real growth rate forecasts were assigned a value of 0. The average of these values was determined for each group and visualized as a trend line over time. The magnitude of the median GDP growth forecast downgrades represents the median decline in growth rates for countries experiencing downward revisions compared to their January 2023 forecasts.

The median downgrade in MENA countries is significantly larger than that in other EMDEs (Figure II.10, Panel B). Specifically, as of September 2024, the median MENA economy that was downgraded had a reduction of 1.6 percentage points in its 2024 real GDP growth forecast since January 2023, compared to a 0.5 percentage point downgrade for the median EMDE economy that also experienced a downgrade.<sup>19</sup>

## Mounting uncertainty in the MENA region

The Gaza-centered conflict in the Middle East has also heightened uncertainty around private sector growth forecasts, as evidenced by increased dispersion among private sector forecasters (Gatti et al., 2024). The wider range of forecasts indicates a growing lack of consensus, underscoring the elevated uncertainty in the region.

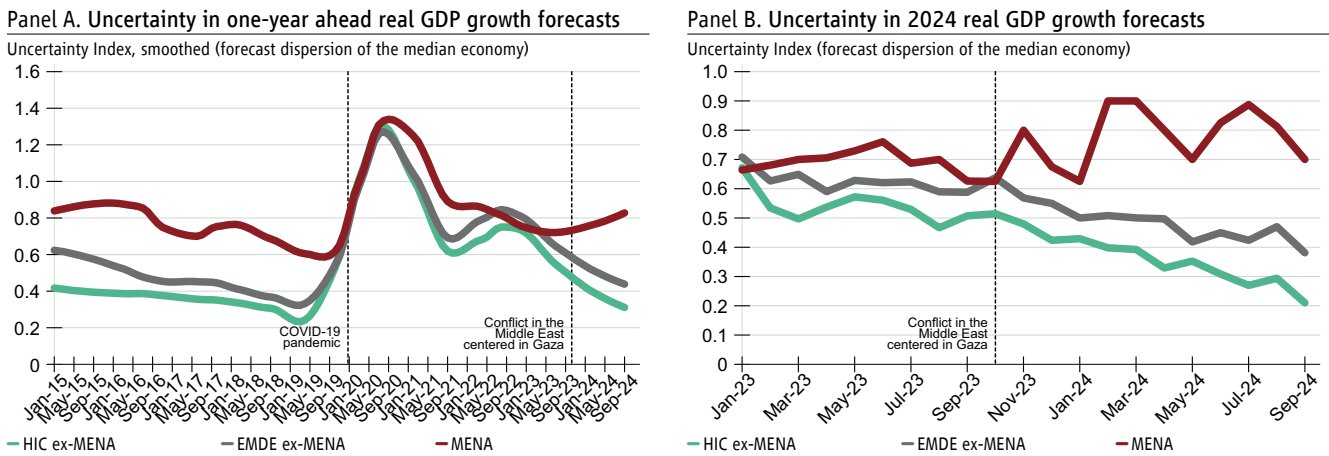
<sup>19</sup> The results are qualitatively similar when using the average downgrades within each group instead of downgrades for the median economy within each group.

Gatti et al. (2024) introduced a measure of uncertainty that reflects the level of disagreement among forecasters at any given time. Analysts often use consensus forecasts—which average forecasts from various institutions, banks, and analysts into a single aggregate. However, this aggregate can obscure significant variability among individual forecasts, which could mask the true extent of disagreement among private sector forecasters. The degree of uncertainty around an economy’s prospects can be captured by looking at the dispersion in forecasts. Greater dispersion indicates higher uncertainty, and to some extent reduced confidence in the forecasts.

Uncertainty in the MENA region has been consistently higher than in other EMDEs and high-income countries (Figure II.12, Panel A). Following the COVID-19 shock, global uncertainty spiked, before starting to decline gradually by the end of 2021. However, uncertainty in EMDEs briefly surpassed MENA’s levels after Russia’s invasion of Ukraine in February 2022. Since the outbreak of the conflict in October 2023, uncertainty in MENA has risen by 13 percent and remained elevated, while uncertainty dropped in other EMDEs (Figure II.12, Panel A).

Rising uncertainty in MENA’s 2024 real GDP growth forecasts contrasts sharply with the downward trend observed in other EMDEs and high-income countries (Figure II.12, Panel B). Compared to other EMDEs, uncertainty in one-year-ahead real GDP growth forecasts is now, as of September 2024, double that of other EMDEs. Typically, as forecasts approach the target forecast date, uncertainty tends to decrease—a pattern seen in other EMDEs and high-income countries (excluding those in MENA). However, this pattern does not hold in the MENA region, where persistent geopolitical tensions continue to fuel uncertainty around the region’s 2024 growth outlook.

**Figure II.12.** Private sector forecast dispersion as a proxy for uncertainty.



Sources: World Bank staff calculations based on Consensus Economics and Focus Economics.  
 Note: MENA = the Middle East and North Africa (Algeria, Bahrain, the Arab Republic of Egypt, Iraq, Jordan, Kuwait, Lebanon, Morocco, Oman, Qatar, Saudi Arabia, Tunisia, and the United Arab Emirates). Panel A. the time series depicts the dispersion of one-year-ahead forecasts for real GDP growth of the median country within each group. Dispersion is captured by the interquartile range across forecasters—that is, the difference between the forecast in the 75th percentile and the forecast in the 25th percentile. The monthly time-series is smoothed using a local regression model. Panel B. the time series depicts the dispersion of 2024 real GDP forecasts of the median country within each group. Dispersion is captured by the interquartile range across forecasters, namely the difference between the forecast in the 75th percentile and the forecast in the 25th percentile at each point in time. The latest observation is for September 2024.

## CHAPTER III. UPDATE ON THE CONFLICT CENTERED IN GAZA

### *Main findings*

- Amidst a deepening humanitarian crisis, the economy in Gaza has come to a near-total halt. Military activity and road closures have led to severe shortages of food, water, fuel, and medical equipment.
- The West Bank faces significant economic decline, driven by low demand and reductions in incomes and jobs, as a result of tighter restrictions on movement and on the labor market, and uncertainty on the amount of clearance revenue transfers. The fiscal crisis for the Palestinian Authority remains very severe, despite an anticipated rise in donor contributions.
- The MENA region faces increasing uncertainty. In countries directly affected by violence like Lebanon, the conflict has already imposed a significant human and economic toll. In other neighboring economies, the conflict suppressed economic activity, for example through tourism receipts (e.g., a 6.6 percent decrease in tourist arrivals in Jordan through August 2024, in annualized terms) and fiscal revenues (e.g., a 62 percent drop in Suez Canal revenues in the Arab Republic of Egypt in the first half of 2024 relative to the second half of 2023).
- As this issue of the MENA Economic Update was going to print, there was a significant escalation of the conflict in Lebanon, with reports of an increasing number of casualties, large scale forced displacement, and widespread destruction of infrastructure. The full extent of the impact of these escalations on Lebanon and the region will be shaped by the future trajectory of the conflict.
- Globally, energy and financial markets have so far shown resilience. Despite some early, short-term fluctuations, oil spot prices and futures have dropped considerably since October 2023 amidst robust supply and concerns about sluggish demand. Disruptions in maritime transportation, especially through the Suez Canal, have increased shipping times and spot prices. With low global demand, increasing fleet sizes, and contractual price-stickiness, however, the increase in shipping costs has not been passed through to consumers to date.

### Effects on the West Bank and Gaza

Eleven months into the conflict in the Middle East, a historic humanitarian crisis in Gaza is unfolding. An estimated 40,000 lives have been lost and 30,000 people have been left severely injured (World Bank, 2024h).<sup>20</sup> Almost two million people are displaced; about 625,000 school-age children have lost one year of education; malnutrition is rampant, with 15 percent of the population experiencing famine-like conditions; the health system has been nearly dismantled through damage to infrastructure and interruptions in service delivery. All of these shocks will bear long-lasting consequences.

The Palestinian territories are nearing economic collapse, with their largest economic contraction on record—a 34 percent decline in real GDP in the second quarter of 2024, according to official data. Gaza's economy shrank by 86 percent in the second quarter of 2024 as the conflict brought the Strip to the brink of collapse. The near-complete halt of economic activity has caused the share of Gaza in the total Palestinian economy to plummet from 17 percent—on average in previous years—to less than 5 percent. At the same time, the West Bank economy contracted by 23 percent in the second quarter of 2024—with the trade, services, construction, and manufacturing sectors experiencing the most

<sup>20</sup> September 2024 World Bank Economic Monitoring Report on the Impacts of the conflict in the Middle East on the Palestinian economy, consulted at <https://thedocs.worldbank.org/en/doc/c25061ab26d14d7acc0330d5a7b4d496-0280012024/original/PalestinianEconomicUpdate-Sept2024-FINAL.pdf>.

significant declines. The Palestinian Authority's (PA) financing gap is projected to reach US\$1.86 billion in 2024,<sup>21</sup> more than doubling the shortfall in 2023, which may pose elevated risks of a systemic failure, especially for delivery of public services. The natural decline in revenues given the economic contraction, compounded by the low levels of aid, and—primarily—the increased monthly deductions by Israel on clearance revenue transfers since October 2023, resulted in the PA further reducing salary payments to civil servants to an average of 60 percent.<sup>22</sup> The fiscal gap continues to be mostly filled with borrowing from domestic banks and arrears to the private sector, public employees, and the pension fund. On a positive note, there is an anticipated rise in donor contributions.

The ongoing military activity and road closures have prevented essential supplies from getting into Gaza, leading to widespread food insecurity and shortages of water, fuel, and medical equipment, alongside the collapse of service provision. The humanitarian crisis has reached a critical juncture, with potentially long-lasting consequences. Displacement is leading to overcrowded shelters and inadequate sanitation facilities. Limited access for humanitarian workers has hampered efforts to address the crisis.<sup>23</sup> Food insecurity in Gaza has massively escalated, threatening a population of nearly 2 million with acute shortages, and possibly placing the entire Strip on the brink of famine. Nearly all Gazans face acute food shortages. The IPC<sup>24</sup> analysis, as of June 2024, indicates that 15 percent of the population (about 350,000 individuals) is experiencing famine-like conditions, with an almost complete lack of food. Additionally, a third of the population is in a state of emergency, suffering from food deficits and higher death rates. These conditions are particularly severe in the northern regions, Gaza City, and the governorates of Deir al-Balah, Khan Younis, and Rafah. An alarming 90 percent of children under two years old and 95 percent of pregnant and breastfeeding women in Gaza are suffering extreme food poverty—consuming two or fewer of the five food groups. About 95 percent of households limit meals and portion sizes, with two out of three of them eating one meal a day.

Repeated mass internal displacement has affected approximately 1.9 million people, as people have sought safety in ever-smaller geographic areas. The destruction or damage of most businesses, coupled with the displacement of both owners and workers, have left most households without any source of income. The surviving economic activities are mostly informal, with essential goods being sold on the black market at exorbitant prices. There has been partial evacuation of the injured or ill,<sup>25</sup> and only a limited number of humanitarian workers have been able to enter or exit. As adequate access to food and safe water decreases in many parts of Gaza, and violence and displacement persist, the associated risks are high, and particularly for vulnerable groups. Before October 2023, UNICEF estimated that more than 500,000 children in Gaza needed mental health and psycho-social support. The number of orphans is also on the rise: in February 2024, UNICEF estimated that at least 17,000 children in the Gaza Strip were unaccompanied or have been separated from their immediate relatives since October 2023.<sup>26</sup> Exposure to traumatic experiences and shocks to human capital are expected to have lasting consequences throughout a lifetime (Gatti et al., 2023b), and the psychological toll of the hostilities is also likely to have severe consequences on reproductive health, including a rise in stress-induced miscarriages, stillbirths, and premature births.<sup>27</sup>

The education system in Gaza has collapsed, and the health system has been significantly compromised by the conflict. About 625,000 school-aged children in Gaza have been out of school since October 2023, which will add to the long-term negative consequences of the conflict (Corral and Gatti, 2020). Preliminary estimates suggest that nearly 95 percent

21 This figure reflects the projected fiscal deficit as calculated by the Palestinian Authority. Several downward risks exist which could lead to a larger fiscal gap, trending towards US\$ 2 bln, based on World Bank staff estimates.

22 "Clearance revenues" are revenues collected by the Government of Israel (GoI) and transferred to the PA after certain deductions. Most clearance revenues are VAT and import duties, and they are payable on a monthly basis according to the Paris Protocol.

23 UNFPA, <https://www.unfpa.org/occupied-palestinian-territory>, consulted online on August 20, 2024.

24 Integrated Food Security Phase Classification (IPC); [www.ipcinfo.org](http://www.ipcinfo.org).

25 UN OCHA, <https://www.unocha.org/publications/report/occupied-palestinian-territory/gaza-humanitarian-response-update-2-15-september-2024>; Consulted online on September 30, 2024.

26 UNICEF, <https://www.unicef.org/press-releases/stories-loss-and-grief-least-17000-children-are-estimated-be-unaccompanied-or>.

27 Harvard School of Public Health, Probing links between trauma and reproductive health harms, 2023. <https://www.hsph.harvard.edu/news/hsph-in-the-news/probing-links-between-trauma-and-reproductive-health-harms>.

of basic and higher education facilities have been damaged or destroyed in the conflict. The conflict has also severely disrupted education services in the West Bank, with public schools reducing in-person schooling because of fiscal constraints and security concerns. The conflict's impact on the health sector is both direct, through damage to health infrastructure, and indirect, through the losses incurred because of interruptions in service delivery. The destruction of water supply infrastructure and solar panels combined with a lack of grid electricity, fuel for back-up generators and essential inputs have caused 80 percent of the primary care centers (PHCs) to no longer be functional. As a result of the collapse of the healthcare system, three field hospitals have recently been put in place. Only 17 out of the 36 hospitals with inpatient capacity are partially functional,<sup>28</sup> which represents 53 percent of the total pre-crisis inpatient, ICU, and maternity bed.

While all Palestinians living in Gaza are living in poverty, households in the West Bank are also experiencing detrimental welfare repercussions from the conflict. Multidimensional poverty in Gaza, in particular, describes a profoundly distressed situation, affecting both people's well-being and mental health, with effects expected to extend well beyond the short term. The severe economic downturn in the West Bank is projected to have more than doubled the short-term poverty rate calculated as of mid-2024 to 28 percent, from around 12 percent in 2023 prior to the conflict.

## Effects of the conflict on MENA and the global economy

Eleven months into the conflict centered in Gaza, the MENA region faces increasing uncertainty. In countries directly affected by violence like Lebanon, the conflict has already imposed a significant human and economic toll. In other neighboring economies, the conflict suppressed economic activity through a drop in tourists' arrivals and a drop in the Suez Canal revenues for the Arab Republic of Egypt. The attacks on vessels in the Red Sea carry the potential to prolong shipping times and inflate costs, posing additional downward risks for the economies in the region and globally. More broadly, escalating geopolitical tensions could unsettle oil and capital markets, and discourage foreign investment. The full implications for the MENA region hinge on the conflict's duration, escalation, and geographical expansion.

Even before the most recent escalation of the conflict in September 2024, Lebanon's beleaguered economy was hurt by growing regional instability. In addition to lost human lives and the damages and destruction of infrastructure, the primary channel of impact had been a sharp drop in tourism receipts, which undermined what was once a cornerstone of economic growth. The displacement of persons from Southern Lebanon led to a cessation of local economic activities and has delivered a blow to consumer spending—an additional impediment to growth. Agricultural areas in the South were extensively damaged, with widespread burning and contamination. These initial adversities contributed to a 0.8 percent contraction of the Lebanese economy already in 2023. Based on pre-escalation data on declining consumer spending and declining tourism receipt, a further 1 percent contraction was projected for 2024. However, as this MENA Economic Update was going to press, the conflict intensified significantly in Lebanon, with reports of increasing number of casualties, large scale displacement, and further destruction of infrastructure. While the full impact on Lebanon's economy remains uncertain given the rapid and unpredictable nature of current events, the ongoing conflict escalations are expected to lead to a further downgrade in the economic projections.

As a key regional player, the Arab Republic of Egypt remains particularly susceptible to balance-of-payment challenges, compounded by recurrent disruptions in Suez Canal maritime traffic; however, its tourism sector has been resilient. The Suez Canal, a vital source of revenue for the Arab Republic of Egypt, has experienced a stark decline in earnings amid escalating security risks in the Red Sea. In the six-month span from January to June 2024, revenues from the Suez Canal

<sup>28</sup> WHO, <https://www.who.int/news/item/12-09-2024-who-analysis-highlights-vast-unmet-rehabilitation-needs-in-gaza>; Consulted online on September 30, 2024.

fell by 62 percent relative to the second half of 2023. For fiscal year 2024/25, revenues are expected to be close to half their pre-conflict level—declining to US\$4.8 billion from the US\$8.8 billion in FY2022/23—a decline that represents 8 percent of the Arab Republic of Egypt's projected reserves. On the upside, tourism revenues increased slightly despite the growing regional security challenges. At the same time, the uncertainty of the conflict looms large over portfolio investments, heightening investors' apprehension across the region.

The conflict has resulted in a reduction in Jordan's tourist numbers at an annual rate of 6.6 percent from October 2023 to August 2024. This downturn was largely due to a year-on-year fall of 19.7 percent in single-day tourists and of 4 percent in overnight visitors. Between October 2023 and August 2024, the decline in tourists since October 2023 was predominantly caused by a decline in European visitors, offset by some increase in arrivals from the GCC countries and other Arab regions.

The impact of the conflict on other non-neighboring countries in the region has been contained so far, largely on account of limited commercial ties with the areas most impacted by the conflict.

Globally, the impact of the conflict on energy and financial sector trends has been so far subsumed into broader market dynamics. Spot prices of crude oil exhibited volatility early in the year, but its futures have declined markedly since October 2023, amidst robust supply and concerns about sluggish demand.<sup>29</sup> Concurrently, short-term gas futures in the European Union briefly surged at the beginning of the conflict, but swiftly returned to pre-conflict levels and are now trading lower (Figure III.1, Panels A and B). Financial markets have also rebounded from initial stress induced by escalating geopolitical tensions. The markets are either maintaining levels comparable to those before the conflict or have risen significantly, propelled by a global market rally that began in December 2023 and surpassed previous benchmarks. For oil-importing nations such as Jordan, and especially Morocco and Tunisia, capital markets have remained resilient since the conflict began, maintaining robust performance without major setbacks (see Figure III.1, Panels C and D).

The disruption of maritime transportation, particularly through the Suez Canal, has prolonged shipping times and increased spot prices for shipping on both a regional and global level. Before the regional security destabilization at the end of 2023, the Suez Canal accounted for about an eighth of global maritime trade and nearly 30 percent of the world's container traffic. But with increasing attacks on commercial vessels, shipping costs have escalated—overall and more so for the routes that were directly affected by the hostility. This is reflected in the increase in the World Container Index (WCI)<sup>30</sup> and even more so in the increase of the Shanghai-to-Genoa freight, with rates four to five times higher than at the end of 2023 (Figure III.2, Panel B). With low global demand, increasing fleet sizes, and contractual price-stickiness, however, the increase in shipping costs has not been passed through to consumers to date.<sup>31</sup>

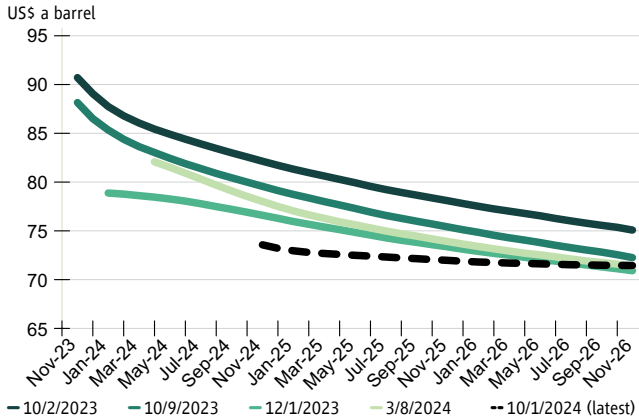
29 Source: July 2024 IEA Oil Market Report, visited online on September 2024 at <https://www.iea.org/reports/oil-market-report-july-2024>.

30 The WCI is a weekly report that captures the price of a 40-foot container across major trade routes between the US, Europe and Asia. It serves as a key benchmark for tracking fluctuations in freight rates and global shipping costs.

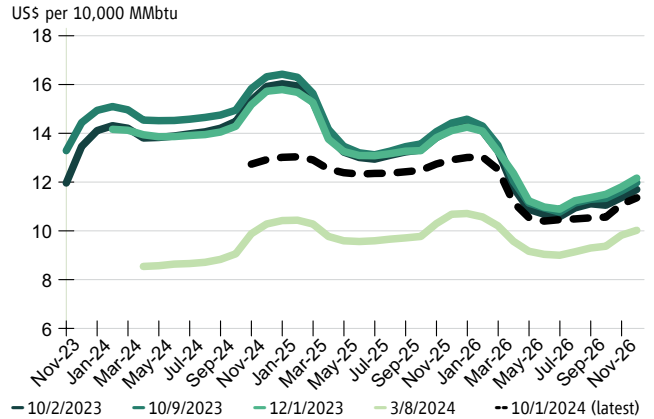
31 See, for example, Standard and Poor's (S&P) Global, August 2024, visited online at <https://www.spglobal.com/marketintelligence/en/mi/research-analysis/shipping-delays-impact-global-supply-chains-and-exports-jul24.html#:~:text=Shipping%20delays%20also%20led%20to,monitored%20in%20the%20coming%20months>.

Figure III.1. Energy and financial markets.

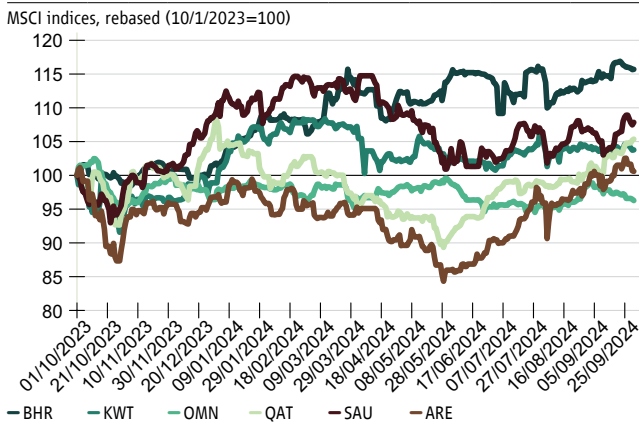
Panel A. Oil Futures since the start of the conflict



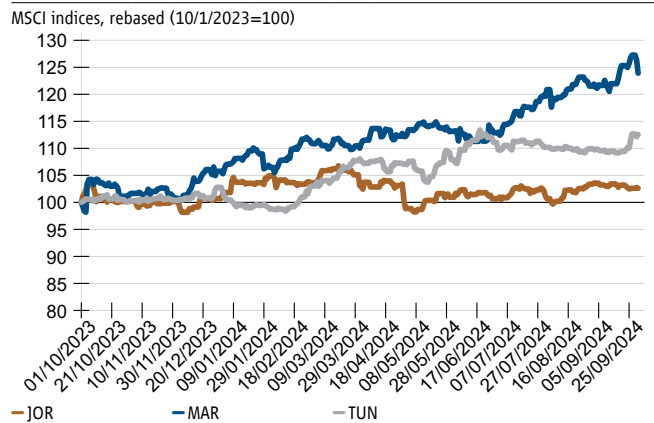
Panel B. Gas Futures since the start of the conflict



Panel C. GCC capital markets since October 1st 2023



Panel D. Developing oil importers capital markets since October 1st 2023

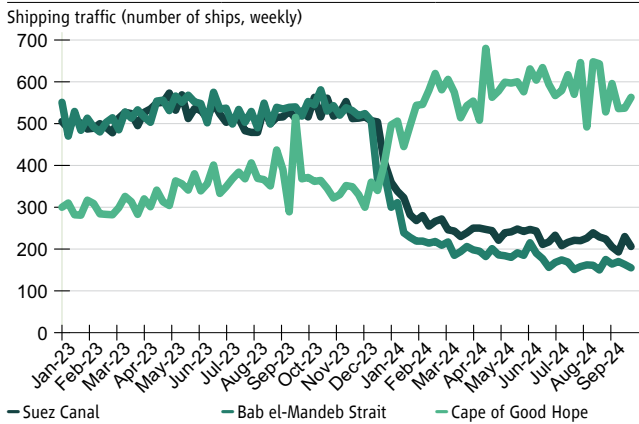


Source: World Bank staff calculations based on Bloomberg L.P.

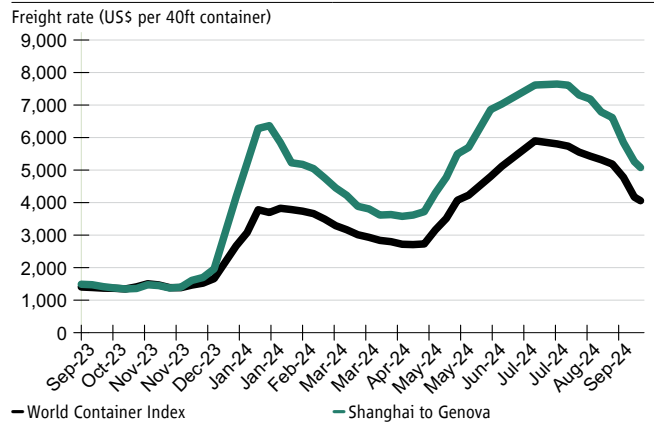
Note: BHR = Bahrain. KWT = Kuwait. OMN = Oman. QAT = Qatar. SAU = Saudi Arabia. ARE = United Arab Emirates. JOR = Jordan. MAR = Morocco. TUN = Tunisia. In Panels A and B, lines show futures contracts closing prices per date indicated, for generic oil contracts and European gas contracts, while the dashed line shows the latest futures contract date (October 1, 2024). Panels C and D show the MSCI Country Equity indices through October 1, 2024, and are rebased to October 1, 2023. The indices are market capitalization-weighted and aggregate the performance of mainly large- and mid-cap companies that represent 85 percent of each market. The indices are denominated U.S. dollars.

Figure III.2. Shipping disruption.

Panel A. Number of ships traversing select chokepoints



Panel B. Drewry World Container Index



Source: International Monetary Fund, Portwatch, <https://en.macromicro.me/charts/44756/drewry-world-container-index>.

Note: Panel A shows the weekly number of ships through September 23, 2024. Panel B shows the daily freight rate through September 26, 2024.

## CHAPTER IV. THE COST OF CONFLICT IN MENA

### *Main findings*

- The conflict in the Middle East centered in Gaza highlights a broader trend of escalating violence in the MENA region, where there has been more than a twofold increase in conflict episodes and a sixfold increase in the share of fatalities since the 1990s.
- In the past four years, MENA has had a higher share of countries involved in conflict than any other region—with 12 out of 19 economies engaged in episodes of armed conflict, compared to an average of 8 out of 19 economies during the four years from 1990 to 1994.
- Between 1990 and 2022, MENA countries generally had higher conflict entry rates compared to comparator EMDE economies, with middle-income MENA countries experiencing rates twice as high and high-income MENA countries experiencing rates four times as high. The conflict entry rate measures when a country shifts from peace to conflict, or when the number of conflict episodes increases over consecutive years.
- The cost of conflict transcends economic analysis, because the loss of human life and societal disruption are immeasurable. Nonetheless, conflict results in immediate economic losses and can have long-term detrimental effects on economic development.
- Conflict contributed to moving MENA countries metrics further from those of the most economically advanced country (called the frontier). Counterfactual estimates suggest that, without conflict, income per capita in MENA countries that have experienced episodes of conflict could have been on average 45 percent higher measured seven years after the onset of conflict.
- Contributing to the economic damages from conflict are destruction of physical capital, human capital losses, supply chain disruptions and economic disorganization, higher costs of finance, and a decline in investment.
- Peace is a pre-condition for sustained economic development as persistent conflict can undo decades of progress, setting back countries in achieving sustainable development.

### A significant rise in frequency and severity of conflicts in MENA

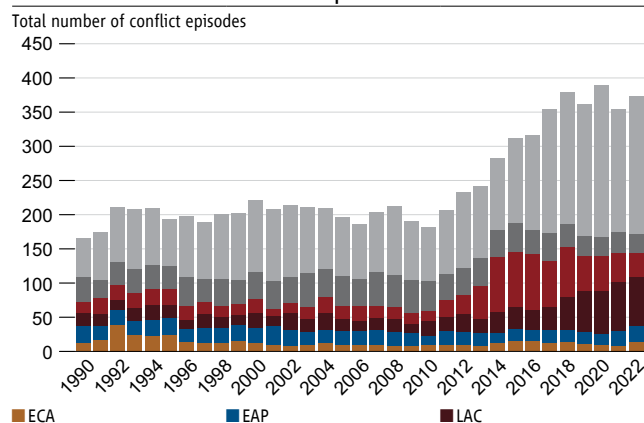
The catastrophic conflict in the Middle East centered in Gaza is profoundly undermining the region's economy and human capital. The ongoing conflict highlights a broader trend of escalating violence across the Middle East and North Africa that has been intensifying over the past few decades.

Since the early 2010s, both the frequency and severity of armed conflicts have been much higher than in the 1990s. Specifically, the average number of conflict episodes per year in the MENA region has more than doubled—from 20 in the 1990s to 52 since 2010 (Figure IV.1, Panel A).<sup>32</sup> The effect on human life has been stark. In the years between 2010 and 2022, conflict-related fatalities in MENA accounted for 38 percent of the world's conflict-related fatalities, six times higher than in the 1990s (Figure IV.1, Panel B). Between 2012 and 2016, the MENA region accounted for 66 percent of the world's conflict-related fatalities.

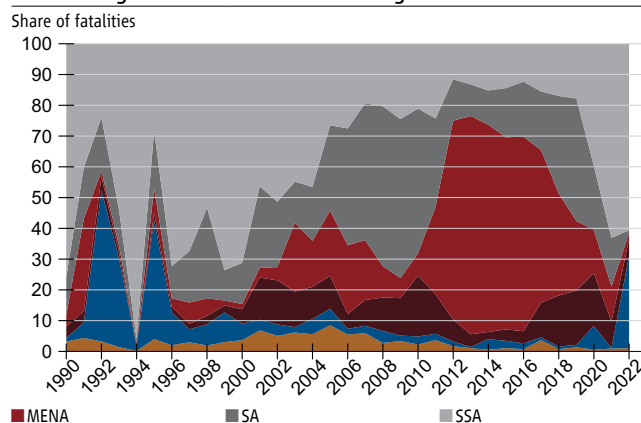
<sup>32</sup> According to the Uppsala Conflict Data Program (UCDP) data, a country is in conflict if it experiences at least 25 conflict-related deaths in a year. All types of conflict are included: state-based conflicts, non-state based conflicts, and one-sided conflicts. The UCDP data are based on individual incidents of lethal violence, known as events, where armed force is used by an organized actor against another organized actor or civilians, resulting in at least one direct death (Sundberg and Melander, 2013; Davies et al., 2024).

**Figure IV.1.** Conflicts and fatalities since 1990, by region.

**Panel A.** Total number of conflict episodes



**Panel B.** Regional fatalities as a share of global total

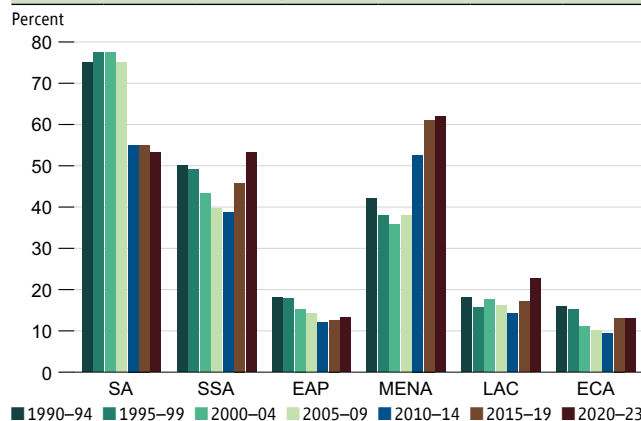


Source: Uppsala Conflict Data Program Georeferenced Event Dataset (UCDP) and World Bank staff calculations.  
 Note: ECA = Europe and Central Asia. EAP = East Asia and the Pacific. LAC = Latin America and the Caribbean. MENA = Middle East and North Africa. SA = South Asia. SSA = Sub-Saharan Africa. Panel A. According to the UCDP, a country is in conflict if it experiences at least 25 conflict-related deaths in a year. If a dyad (consisting of two conflicting parties or party killing unarmed civilians) crossed the 25-deaths threshold in a single year, but did generate some events in either previous or subsequent years, all events belonging to the dyad are included, including those in years where the threshold was not crossed. All types of conflict are included: state-based, non-state based, and one-sided conflicts. Panel B UCDP GED data provide three estimates for deaths for each event: low, high, and best estimates. The number of fatalities is based on the best estimate of deaths identified in the source material, which is the most reliable estimate. The sample for both panels include 119 countries.

Since 1990, a growing share of countries in the region has been affected by ongoing conflicts (Figure IV.2), especially since the early 2010s. In the past four years, 12 out of 19 economies in MENA have been involved in episodes of armed conflict, compared to an average of 8 out of 19 economies during the four years from 1990 to 1994. MENA has a bigger portion of its countries in conflict than any other region—including South Asia and Sub-Saharan Africa, which also face significant levels of conflict.

Conflict entry, a year in which conflict begins or the number of conflicts increases in a country, is another metric that shows that the MENA region is among the most severely conflict-affected areas globally. Between 1990 and 2022, MENA countries generally had higher conflict entry rates compared to comparator EMDE economies. This was particularly evident among middle-income and high-income MENA countries, where conflict entry rates were consistently higher than those of other comparator EMDEs (see Figure IV.3, Panels B and C). Low-income MENA countries, on average, had similar conflict entry rates to other low-income EMDEs (see Figure IV.3, Panel A). In contrast, conflict entry rates in middle-income MENA countries were, on average, twice as high as in other middle-income EMDEs, while high-income MENA countries experienced rates four times higher than those in other high-income EMDEs. The conflict entry rate, for a given country, captures shifts from having no conflict episodes in one year to experiencing one or more conflict episodes the next year, as well as increases in the number of conflict episodes from one year to the next.

**Figure IV.2.** The share of countries in conflict by region since 1990.

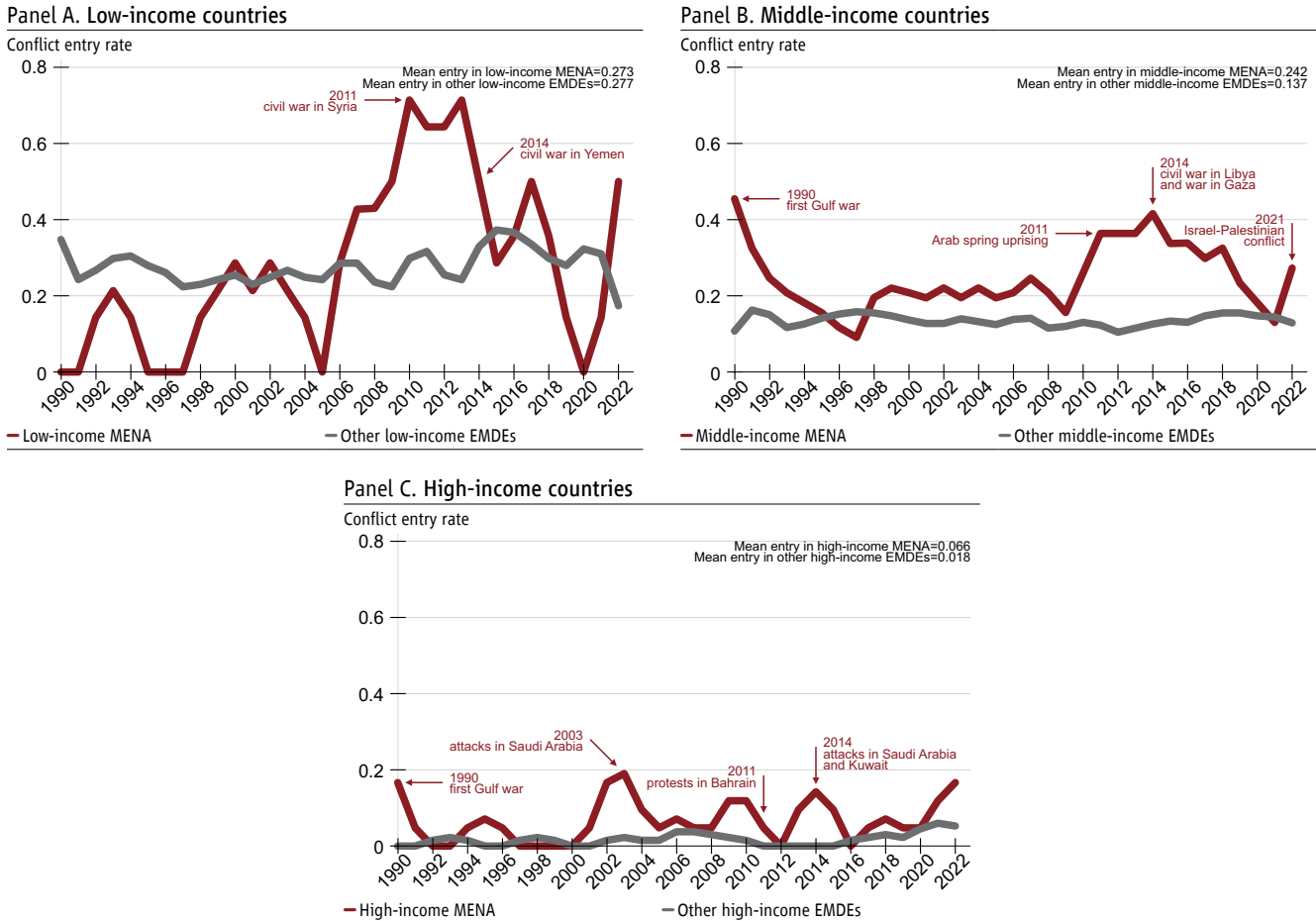


Source: Uppsala Conflict Data Program Georeferenced Event Dataset (UCDP); and World Bank staff calculations.  
 Note: ECA = Europe and Central Asia. EAP = East Asia and the Pacific. LAC = Latin America and the Caribbean. MENA = Middle East and North Africa. SA = South Asia. SSA = Sub-Saharan Africa. According to the UCDP data, a country is in conflict if it experiences at least 25 conflict-related deaths in a year. If a dyad (consisting of two conflicting parties or party killing unarmed civilians) crossed the 25-deaths threshold in a single year, but did generate some events in either previous or subsequent years, all events belonging to the dyad are included, including those in years where the threshold was not crossed. All types of conflict are included: state-based, non-state based and one-sided conflicts. The figure sample includes 213 countries. Regions are ordered in ascending 1990 GDP per capita (2021 constant PPP).

Peaks in Figure IV.3 for MENA align with major regional conflicts, such as the 1990 Gulf War, which precipitated six separate conflict episodes in Iraq that year and the escalation of the Syrian civil war, in which the number of conflict episodes in the Syrian Arab Republic skyrocketed from five active ones in 2011 to 45 in 2014. The Libyan and Yemeni

civil wars and a conflict in Gaza also began in 2014. By 2021, the Syrian Arab Republic, the Republic of Yemen, Iraq, and the West Bank and Gaza were all embroiled in active conflicts, with the Israel-Palestinian conflict that year marking yet another escalation in the region’s long-standing turmoil.

**Figure IV.3. Incidence of entry into conflicts in MENA by income group.**



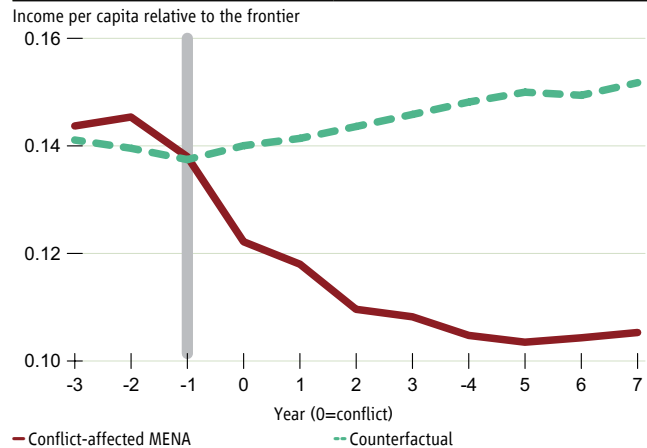
Source: Uppsala Conflict Data Program Georeferenced Event Dataset (UCDP); and World Bank staff calculations.  
Note: MENA = Middle East and North Africa, EMDEs = emerging market and developing economies. Other EMDEs exclude MENA countries. Low-income MENA countries include the Syrian Arab Republic and the Republic of Yemen. Middle-income MENA countries include Djibouti, Algeria, the Arab Republic of Egypt, the Islamic Republic of Iran, Iraq, Jordan, Lebanon, Libya, Morocco, the West Bank and Gaza, and Tunisia. High-income MENA countries include the United Arab Emirates, Bahrain, Kuwait, Oman, Qatar, and Saudi Arabia. The variable entry is equal to 1 if, for a given country-year pair, the country is not in conflict but enters a conflict the following year, or if the country is in conflict at baseline and experiences an increase in the number of conflicts the following year. According to the UCDP data, a country is in conflict if it experiences at least 25 conflict-related deaths in a year. All types of conflict are included: state-based, non-state based and one-sided conflicts. The time series are smoothed using running-mean with bandwidth 0.15.

## The ripple effects of conflicts on afflicted countries

The loss of human life and societal disruption are fundamentally immeasurable, and their ripple effects on communities and economies are profound and enduring. These impacts extend beyond the realm of economic metrics; the suffering and devastating effects on human life elude any attempt at quantification.

Nevertheless, conflict also does cause immediate economic losses and can have long-term detrimental effects on economic development. In MENA, conflict contributed to distancing MENA countries further from the frontier of economic development—the most economically advanced economy with which developing economies seek to catch up in terms of economic goals such as income per capita, consumption per capita, employment, and productivity.<sup>33</sup> Counterfactual estimates suggest that income per capita relative to the frontier in MENA countries that have experienced episodes of conflict could have been on average 45 percent higher in a hypothetical scenario in which there was no conflict.<sup>34</sup> Focusing on five major conflict episodes in Algeria, Iraq, the West Bank and Gaza, the Syrian Arab Republic, and the Republic of Yemen, the analysis shows that after a conflict, income per capita (relative to the frontier) significantly drops from the pre-conflict period. The estimates, based on these five episodes, highlight that income per capita relative to the frontier declined on average by 12 percent in the year following the beginning of the conflict. The effects intensify over time and persist, culminating in a decline of 24 percent seven years after the conflict started relative to the year before the conflict began (Figure IV.4).<sup>35</sup>

**Figure IV.4.** Counterfactual estimates of income per capita relative to the frontier for MENA countries in conflict.



Source: International Monetary Fund, *Investment and Capital Stock Dataset* (ICSD); Penn World Table 10.01; Uppsala Conflict Data Program Georeferenced Event Dataset (UCDP); World Bank, *World Development Indicators* (WDI) and staff calculations.

Note: MENA = Middle East and North Africa. To determine what the standard of living in a country in conflict would be were there no conflict economists construct a group of countries that were so similar to the conflict country before the crisis that taken together, their standards of living could reasonably proxy what would have happened in the conflict country. MENA is the average of impact of conflict on selected countries (Algeria, Iraq, the West Bank and Gaza, the Syrian Arab Republic, and the Republic of Yemen), while counterfactual MENA is the average of each country's counterfactual in the absence of conflict. Aggregate GDP for each country is obtained by applying growth rates from national accounts to the level of GDP in PPP in 2017. More precisely, the growth rate of real GDP at constant 2017 national prices is applied to the expenditure side real GDP level at chained PPPs in 2017. Income per capita is then obtained by dividing aggregate GDP by population. The conflict variable is a dummy variable taking values equal to 1 when a country exceeds the 75th percentile of fatalities per million people (33), in the world distribution (*best* in UCDP). In the figure, 0 represents the start of the conflict. Weights assigned to countries in the control group are used to create the counterfactuals. Weights and observable variables used to compute the weights are specified in the notes of Figure IV.5.

Country-specific counterfactual estimates suggest that the Syrian Arab Republic's per capita income, relative to the frontier would have been nearly twice the actual level that occurred seven years after the onset of the Syrian civil war in 2011. In the Republic of Yemen, estimates suggest that, by the end of the analysis period, per capita income relative to the frontier might have been three times what it was had the Yemeni crisis not occurred in 2011. In Algeria, had there been no civil conflict in 1992, per capita income would have been 17 percent higher and in Iraq it would have been 27 percent higher had there been no war in 2003 (Figure IV.5). For the West Bank and Gaza, per capita income relative to the frontier would have been 15 percent higher had there been no conflict in 2001. Considering the severe devastation caused by the ongoing conflict in the Middle East, centered in Gaza, the economic losses are likely to be significantly greater.

Assessing what hypothetical standards of living in MENA countries in conflict would be had they not experienced conflict presents a significant challenge. To construct those "what if" standards of living requires a counterfactual exercise that uses a so-called synthetic control method developed by Abadie and Gardeazabal (2003). This approach assembles a group of countries (called synthetic control countries) that were quite similar to the conflicted country before the crisis. It then determines a counterfactual standard of living for the conflict country based on the weighted average of living standards in the synthetic control countries that did not experience conflict during the period in question. The similarities are determined from a set of pre-conflict observable characteristics—such as GDP growth rates for the three years prior to the conflict, as well as in the year preceding the conflict GDP per capita, trade openness, investment ratios, and initial

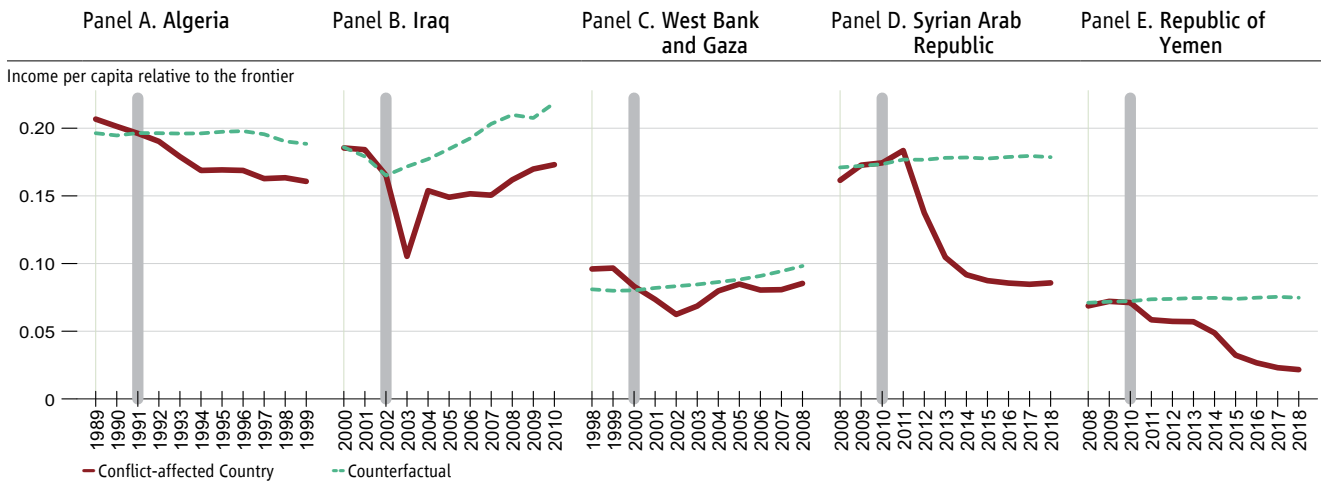
<sup>33</sup> In this analysis, the frontier economy is considered to be the United States.

<sup>34</sup> The counterfactual estimate of 45 percent is identical when using income per capita instead of income per capita relative to the frontier economy.

<sup>35</sup> Relatedly, the April 2024 IMF *Regional Economic Outlook* also shows that the MENA region suffers from larger and more persistent scars associated with the onset of conflict compared to the rest of the world (IMF, 2024). Specifically, for the average global economy, the beginning of a high-intensity conflict leads to an approximately 2.5 percent decrease in real GDP per capita in the first few years, but this effect fades after five years. On the other hand, countries in the Middle East and in Central Asia face a similar 2 percent drop in per capita output in the first year, but the effects intensify over time, leading to a decline of more than 13 percent in per capita GDP nine years after the initial shock (IMF, 2024).

exposure to terms of trade shocks. Box IV.1 details the methodology employed to estimate counterfactual standards of living in MENA had there been no conflict.

**Figure IV.5.** Counterfactual estimates of income per capita relative to the frontier around selected conflict events.



Source: International Monetary Fund, *Investment and Capital Stock Dataset*. Penn World Table 10.01. Uppsala Conflict Data Program Georeferenced Event Dataset (UCDP). World Bank, *World Development Indicators* and staff calculations.

Note: To determine what the standard of living in a country in conflict would be were there no conflict economists construct a group of countries that were so similar to the conflict country before the crisis that taken together, their standards of living could reasonably proxy what would have happened in the conflict country. These so-called synthetic control groups are based on a weighted average of five variables. See Box IV.1.

In Panels A and E, weights are chosen to match the five variables: 1. growth rates three years prior to the conflict; 2–5. in the year prior to the conflict, income per capita relative to the frontier; the trade openness; the exposure to terms-of-trade shock; and the share of investment-to-GDP. Due to data availability, Panel B excludes the exposure to terms-of-trade shock, Panel C excludes the exposure to terms-of-trade shock and the share of investment-to-GDP, and Panel D excludes the share of investment-to-GDP. For Algeria, the top countries in the synthetic control group are: Cameroon (0.33), Thailand (0.13), the United States (0.09), Jordan (0.06), China (0.03), and Malaysia (0.03). For Iraq, the countries in the synthetic control group are: Eswatini (0.43), Argentina (0.36), Guinea-Bissau (0.19), and Tajikistan (0.02). For the West Bank and Gaza, the top countries in the synthetic control group are: Cambodia (0.42), Venezuela (0.17), Moldova (0.07), and Mozambique (0.05). For the Syrian Arab Republic, the top countries in the synthetic control group are: Bangladesh (0.17), Burundi (0.06), Niger (0.02), and Uganda (0.02), and Mozambique (0.02). For the Republic of Yemen, the top countries in the synthetic control group are: Guinea (0.27), Burundi (0.23), Mozambique (0.12), Haiti (0.06), and Guinea-Bissau (0.02).

**Box IV.1. Methodology used to construct counterfactual scenarios in the absence of conflict.**

To determine the effect of a conflict on a country’s standard of living (GDP per capita) it is necessary to create a “what if” scenario. That is, what would a country’s GDP per capita have been in the counterfactual case of no conflict. Economists try to do that by identifying a group of countries (called a synthetic control group) that were so similar to the conflict country before the crisis that taken together, their standards of living could reasonably proxy what would have happened in the conflict country had there been no fighting.

Based on data from the Uppsala Conflict Data Program, major conflict episodes since the 1990s are identified in MENA countries. The selected conflict episodes are listed in Table BIV.1.1. Counterfactual scenarios for the selected countries are constructed using the synthetic control method, which requires creating a synthetic control group for each country afflicted by conflict (called the treated country) in our sample of selected countries. The synthetic control group is constructed as a weighted average of the synthetic control countries—countries that were not subject to major conflict events during the same period of analysis. For each treated country, any country that was treated in any year during the window of analysis is excluded from the sample of synthetic control countries.

The reasoning behind the synthetic control method is that a synthetic control group—which matches the treated country based on observables in the pre-period before the onset of the conflict—can return results close to what would have happened in the conflict-affected country had there been no conflict. The variables used to construct the weights for countries in the synthetic control group are: growth rates in the three years prior to the conflict outbreak; and, for the year preceding the conflict, the level of GDP per capita relative to the frontier, the level of trade openness of the economy, the year-on-year change in the net barter terms of trade index (a ratio of an index of export prices to an index of import prices), and the share of investment-to-GDP.

*(continued to next page)*

*Box IV.1 continued*

Then a counterfactual outcome of interest (income per capita) is computed as a weighted average of income-per-capita in the control countries. The difference between the weighted average of the income-per-capita for the synthetic control group and that of the conflict-affected country can be interpreted as the effect of the conflict on the country. The underlying assumption is that, in the absence of a conflict, the treated country and the synthetic control group would have experienced similar outcomes. In other words, the differences between the treated country and synthetic control group can be attributed to the conflict.

The analysis is conducted in two steps. First, counterfactual estimates are produced for the selected countries in Table BIV.1.1. Then, for each country under consideration, the synthetic control group is selected to match the set of observables, highlighted above, over the same time period. To estimate aggregate effects for the MENA region, the conflict start date—for all conflict events—is set to zero, which allows examining the average effect of conflict three years before one started and up to seven years after.

The methodology was first developed by Abadie and Gardeazabal (2003), and extended in Abadie, Diamond, and Hainmueller (2010, 2015). Similar approaches were also employed in IMF (2019) to examine the effects of conflict in Sub-Saharan Africa and World Bank (2020a) to study the regional effects of the conflict in the Syrian Arab Republic. One limitation of this approach is that it does not consider region-specific shocks that may have affected MENA countries in conflict, but not the synthetic control group. Consequently, the observed effects for MENA could be influenced by MENA-specific shocks that did not affect the synthetic control group.

**Table BIV.1.1.** Selected conflict episodes included in the analysis.

Country	Start year	Description of event
Algeria	1992	January 1992, Algerian civil conflict.
Iraq	2003	March 2003, Iraq war.
West Bank and Gaza	2001	September 2001, Second Intifada.
Syrian Arab Republic	2011	March 2011, Syrian civil war.
Republic of Yemen	2011	January 2011, beginning of the Yemeni Uprising.

*Notes:* These conflict episodes are identified based on the severity of the conflict in those years. For each country-year pair, the conflict generated battle-related deaths, as share of population, above the 75th percentile of the world population (33 deaths per million inhabitants). Algeria is the only exception, as it was treated at the 50th percentile of the world distribution in 1992 (used as the beginning of the conflict) and reached the 75th percentile of the world distribution in 1994. In the Republic of Yemen, the uprising started in January 2011, which set the stage for the escalation into civil war in 2014.

## Conflicts lead to human capital losses, increased food insecurity, supply chain disruptions, and lower investment

The adverse effects of conflict on regional economies are multifaceted. They include the destruction of physical capital, disruptions to supply chains, and economic disorganization. Conflicts also lead to higher financing costs, and reduced investment levels. Additionally, they result in the profound erosion of human capital, and can cause a rise in food insecurity, which increases the risk of famines.

In the MENA region, elevated levels of country risk go beyond escalating violence and rising political instability. Figure IV.6, Panel A shows the average of an index of country risk between January 2015 and May 2024 for each MENA country relative to the frontier. This index of country risk averages not only political risk (including internal and external conflict) but also financial and economic risk based on such indicators as the central government budget balance, the current account, and debt.<sup>36</sup> The figure shows that the GCC countries, with the exception of Bahrain, have relative composite

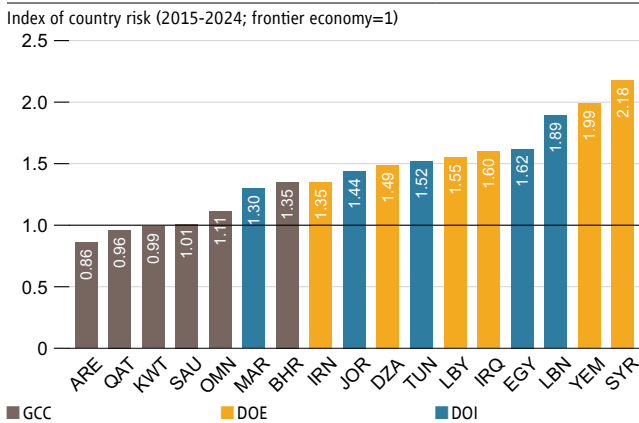
<sup>36</sup> The Composite Risk Rating is calculated as an aggregate of Political Risk (100 points maximum), Financial Risk (50 points maximum), and Economic Risk (50 points maximum). The total points from the three indices are multiplied by 0.5 to produce the weights for inclusion in the Composite country risk rating.

risk similar to or lower than the frontier. In contrast, the rest of the MENA countries display at least 30 percent higher relative composite risk than the frontier. Lebanon, the Republic of Yemen, and the Syrian Arab Republic are among riskiest countries in the world; they have a relative composite risk rating that is more than 80 percent higher than the frontier. The primary driver is high political risk.

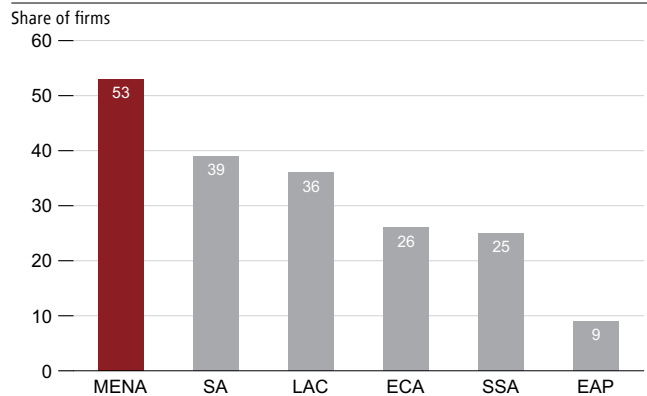
Beyond the devastating effects of conflict on human life and the region’s economy, elevated country risk affects production processes. Brancati et al. (2024) analyze how conflict affects firms’ performance globally, using georeferenced data from 90 countries between 2006 and 2019, along with geospatial data on political violence events. They find that higher exposure to conflict—as measured by the number of events occurring in the proximity of the firm, lowers both sales and spending on production inputs. Sales decline because of the conflict-induced reduction in the availability of raw materials and domestic and imported intermediate inputs, as well as an increase in informal competition. Firms react to lower sales by cutting labor costs—lowering the average wage through increased use of unskilled workers—and reducing expenditures on other production inputs. Figure IV.6 Panel B shows the percentage of firms identifying political instability as a major or severe constraint on their operations. The MENA region has the highest percentage at 53 percent, followed by the South Asia at 39 percent. The lowest is in East Asia and the Pacific, where only 9 percent of firms report political instability as a major or severe constraint on their operations.

**Figure IV.6.** Composite risk rating in MENA and share of businesses facing political instability.

Panel A. Countries in MENA exhibit high levels of risk



Panel B. A disproportionate share of businesses in MENA identifies political instability as a major or very severe constraint



Source: World Bank staff calculations based on data from the *International Country Risk Guide* (Panel A) and the *World Bank Enterprise Surveys* (Panel B).  
 Note: Panel A. The composite risk rating was adjusted by subtracting each country-month risk rating from 100. Each country’s risk rating then was divided by the U.S. risk rating to calculate relative risk rating. The relative risk rating for the period from 2015 to 2024 was then averaged for each country. Panel B shows results from a regression analysis on the share of firms identifying political instability as a major or severe constraint—using year, region, and an advanced economy dummy variable as predictors. The margins for each region were calculated and are displayed in the bar graph. The MENA region = Djibouti, the Arab Republic of Egypt, Iraq, Jordan, Lebanon, Morocco, Malta, the West Bank and Gaza, Saudi Arabia, Tunisia, and the Republic of Yemen. The data are from 2006 to 2023.

Besides having a short-run effect on growth documented in the previous section (Ahir et al. 2022, Fan et al. 2024), a higher level of country risk could also affect standards of living in the long run. More risk could increase the cost of finance because investors will want to be compensated for the uncertainty. Moreover, when risk and uncertainty are high, businesses may choose to postpone investment or hiring decisions to avoid costly mistakes, and consumers may also delay the purchase of durables such as housing and cars (Bloom 2014). Recently, de Roux and Martinez (2023) document an increase in credit for long-term investment projects after the formal cessation of conflict in Colombia in 2016—reflecting a resumption of decisions to invest that were delayed by high uncertainty. Caladra and Iacoviello (2022) also document that higher geopolitical risk foreshadows lower investment and employment and is associated with higher disaster probability and larger downside risks.

The recovery from the economic damage of conflict, in particular, could take a long time. Ilut, Kherig, and Schneider (2018) show that firms respond more to bad shocks than to good shocks, which would slow the recovery in employment

and investment. Mueller and Tobias (2016) document that even six years after the end of a civil war, GDP per capita is 15 percentage points lower, on average. Armed conflict destroys social capital (Korovkin and Makarin 2023), disrupting networks in international trade, which may take time to rebuild.

Finally, instability and conflict affect human capital through multiple channels. They impact rates of educational attainment as well as prompt skilled people to leave. Both have ripple effects on growth in the long run. Brown and Velasquez (2017) document a reduction in attained years of education among young adults exposed to increased local violence because of increased financial hardship at the household level. In the same vein, Bruck, Di Maio, and Miaari (2019) find that the Israeli-Palestinian conflict in the West Bank in 2000–2006 reduced a student’s probability of passing a final exam, his or her total test score, and the probability of being admitted to a university. These bad educational effects occurred because of both conflict-induced deterioration of school infrastructures and a worsening in the student’s psychological well-being.

The devastating effects on human capital from escalating conflict may be exacerbated by rising food insecurity and increased risks of famine. All 19 countries around the world that were identified by the Food and Agriculture Organization (FAO) in 2017 as undergoing a protracted food crisis were also in conflict and violence situations (Holleman et al., 2017). Moreover, 60 percent of the 815 million malnourished individuals lived in countries struggling with conflict, violence, and fragility, while 79 percent of stunted children under age five lived in countries affected by conflict (FAO et al., 2017). Empirical studies have also consistently confirmed that food insecurity increases during conflict. Muriuki et al. (2023) showed that exposure to violent conflict on average reduces the food consumption score by 16 percent in two Sub-Saharan African countries, Malawi and Ethiopia. Additionally, Akresh et al. (2011) found that in the aftermath of the Rwandan civil war, boys and girls born in affected regions were at a heightened risk of stunting. George et al. (2020) highlighted that escalating conflict intensity, because of Boko Haram attacks in Nigeria, resulted in households having to depend more frequently on less preferred food sources, to decrease the variety of foods consumed, and to reduce meal portion sizes.

## Peace is an essential prerequisite for economic development

Peace is a necessary pre-condition for sustained economic development. Conflict can be justifiably referred to as “development in reverse” (Collier et al., 2003), because persistent conflict can undo decades of progress toward achieving sustainable development.

Peace and sustainable development ultimately affect each other, so reconstruction efforts need to foster long-term sustainable development. Two principles for peacebuilding and reconstruction might be relevant to countries in the MENA region that are navigating a path to recovery after a conflict. First, *the path for recovery needs to address underlying grievances, that unless resolved, could lead to sustained cycles of violence or “conflict traps.”* The traditional reconstruction model, which typically calls for a stable central government as the key to carrying out a top-down approach to reconstruction, may not be sufficient to guarantee lasting peace in current conflict scenarios. Grassroots and community-driven bottom-up approaches should complement any top-down models, to enhance the chances of establishing enduring peace. The reconstruction of Iraq following the 2003 war illustrates this case. Following the war, nearly US\$60 billion was invested in reconstruction efforts—mostly targeting the oil sector, which employed only 1 to 2 percent of Iraq’s labor force. An anonymous online survey in 2019 revealed that 25 percent of Iraqi participants identified the lack of job opportunities as the primary barrier to ensuring a more effective transition to peace (De Cosmo et al. 2022), underscoring the need for a grassroots approach to peacebuilding that tackles fundamental grievances (Hideki et al., 2019).

Second, *seeking a path towards sustainable peace should balance tradeoffs between immediate stability and long-term efforts conducive to sustainable peace*. Short-term recovery efforts should therefore be complemented with long-term strategies for sustainable development. Recovery efforts aimed at ceasing violence and tackling immediate needs can generate quick fixes, but can at times undermine efforts to achieve long-term sustainable peace, which, as previous peacebuilding experiences have shown, may take 30 to 50 years and should focus on the key drivers and enablers of sustainable peace. For instance, while immediate recovery efforts like humanitarian aid can have stabilizing effects in the short term, they may reduce the government’s incentive to build its own service systems, potentially hindering the development of these institutions and exacerbating the structural issues that underlie long-term conflict (De Cosmo et al. 2022).

Recovery after conflict can sometimes spur rapid economic growth, as seen during Europe’s reconstruction following World War II (see Box IV.2). To sustain such growth, ensure near-term recovery and long-term economic transformation, restoring trust, supporting gender equity, strengthening human capital, and addressing fragility are prerequisites to supporting near-term recovery and long-term economic transformation. Chapter V of this report examines long-term growth in the MENA region, unpacks reasons—beyond conflict—why the region lags behind global comparators, and identifies key policy priorities to help boost growth and improve standards of living.

#### **Box IV.2** The paradox of Europe’s extraordinary recovery following World War II.

Recovery after conflict can sometimes spur rapid economic growth. This was the case in Europe following World War II. The quarter-century that followed the end of the war was marked by extraordinary economic expansion and social progress across the continent (Vonyó, 2020).

World War II led to approximately 60 million casualties worldwide and displaced tens of millions of people (Weinberg, 2005). Despite the extensive physical destruction caused by warfare and aerial bombardment, Europe emerged from the war more prosperous than ever. This aligns with the predictions of the Solow growth model, which posits that a low physical capital stock is associated with higher returns to capital, thereby driving capital accumulation and economic growth (Mankiw et al., 1992). Population growth and post-war mass migration offset the casualties of the war. Plants and industrial equipment survived the war, despite the enormous material damages. In both Germany and Italy, the two main targets of Allied strategic bombing, industrial fixed capital grew by 20 percent and 30 percent, respectively, between 1937 and 1945 (Vonyó, 2020). On the other hand, in the post-war period, bottlenecks in industrial production from the demolition of transportation structures were swiftly addressed by the intense labor mobilization that was characteristic of this wartime period.

The U.S. involvement in reconstruction through the Marshall Plan was also crucial to reconstructing European trade and cooperation. U.S. aid enabled recipient countries to address shortages of raw materials and invest in bottleneck industries in exchange for trade liberalization, the restoration of free market systems, and the elimination of wartime controls and rationing. Finally, the support provided by the Allies for the revival of the German economy was crucial for European reconstruction. West Germany alone stood as the continent’s largest market and the leading exporter of capital goods (Vonyó, 2020). These strong foundations of economic recovery in Western Europe combined with crucial assistance provided by the Allies are critical factors to explain the atypical post-war prosperity in Europe.

## CHAPTER V. DRIVING GROWTH IN THE MIDDLE EAST AND NORTH AFRICA

### *Main findings*

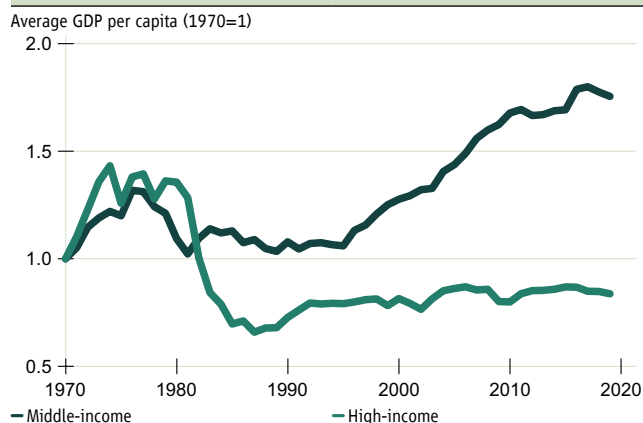
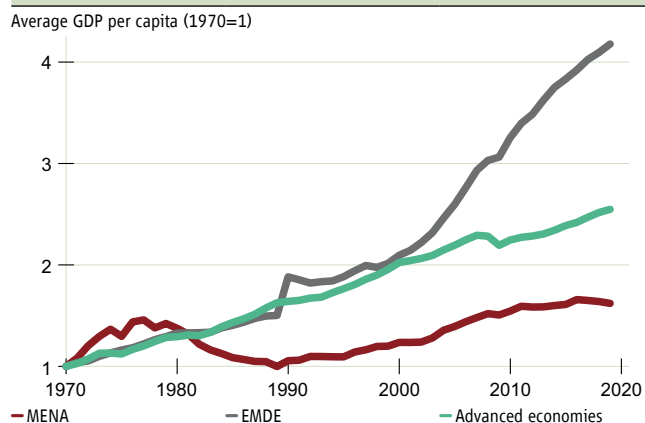
- Growth in income per capita in the Middle East and North Africa (MENA) has slowed for oil importers in the past decade and is volatile for oil exporters.
- Increasing employment rates and enhancing aggregate productivity are critical to boosting growth in the region.
- Closing the gender employment gap would increase income per capita by around 50 percent in the typical MENA economy, but gains would be larger if workers continue to acquire schooling.
- Transforming the role and the size of the state would improve the allocation of resources, leading to substantial gains in aggregate productivity.
- Tapping into the frontier of technology and ideas through more international trade would also increase aggregate productivity.

### Income per capita in the MENA region between 1970 and 2019

Between 1970 and 2019, aggregate real GDP in the Middle East and North Africa (MENA) increased by a factor of 5.6. There is, however, diversity among MENA countries. In middle-income countries, aggregate real GDP increased by a factor of 5.2 (the average annual growth rate is 3.4 percent); in high-income countries (economies in the Gulf Cooperation Council or GCC), by a factor of 6.1 (average annual growth rate of 3.7 percent).<sup>37</sup>

As indicated in Chapter II, GDP per capita is a better measure of well-being. Per capita incomes in the GCC were 16 percent lower in 2019 than in 1970 (Figure V.1). In contrast, per capita income in MENA middle-income countries grew 76 percent on a stable path. The average for MENA has increased by 62 percent since 1970—far less, however, than the fourfold increase in emerging market and developing economies (EMDEs) and the twofold increase among advanced economies (Figure V.2). To understand these trends in real GDP per capita, the patterns of population changes in the region are informative. Between 1970 and 2019, population increased by a factor of 3.4 in the region, a factor of 2.9 in MENA middle-income countries (average annual growth rate of 2.2 percent) and a factor of 7.3 in the GCC (average annual growth rate of 4.1 percent). These large population changes in the GCC influence income per capita trends. The sizable increase in population in the GCC in this 50-year period is due to migration. The number of migrants in the GCC surged from 241,000 in 1960 to over 30 million by 2020 (World Bank 2023a). Migration greatly accelerated from the 1970s onwards largely due to the oil boom. Governments established contractual agreements with various countries of origin to attract large numbers of temporary migrant workers. By 2020, migrants made up over 80 percent in Qatar and 90 percent in the United Arab Emirates.

<sup>37</sup> Among MENA countries, the World Bank in 2022 classifies Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates as high-income countries; Algeria, Djibouti, the Arab Republic of Egypt, the Islamic Republic of Iran, Iraq, Jordan, Lebanon, Morocco, Tunisia, and the West Bank and Gaza as middle-income countries; and the Syrian Arab Republic and the Republic of Yemen as low-income countries. Due to lack of data for the Republic of Yemen for the 1970s, the averages for low-income countries are excluded.

**Figure V.1.** Income per capita in MENA income groups, 1970–2019.**Figure V.2.** Income per capita in MENA, EMDEs, and advanced economies, 1970–2019.

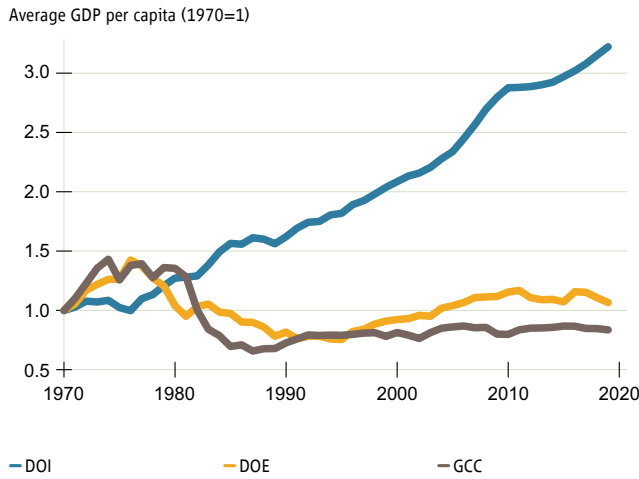
Source: World Bank staff calculations based on data from the Penn World Table 10.01.

Note: The time series of aggregate GDP for each country is the growth rate from real GDP at constant (2017) national prices applied to the expenditure side real GDP level at chained purchasing power parities in 2017. Aggregate GDP is then divided by population. Figure V.1: High income countries = Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates. Middle income countries = Algeria, Djibouti, the Arab Republic of Egypt, the Islamic Republic of Iran, Iraq, Jordan, Lebanon, Morocco, Tunisia, The West Bank and Gaza. Figure V.2: MENA = Middle East and North Africa (Algeria, Bahrain, Djibouti, the Arab Republic of Egypt, the Islamic Republic of Iran, Iraq, Jordan, Kuwait, Lebanon, Morocco, Oman, Qatar, Saudi Arabia, the Syrian Arab Republic, Tunisia, United Arab Emirates, The West Bank and Gaza, the Republic of Yemen).

For oil exporter countries, movements in oil prices matter significantly, and there were several fluctuations between 1970 and 2019. During the boom in oil prices in the 1970s, income per capita increased among developing oil exporters (Algeria, the Islamic Republic of Iran, Iraq, the Syrian Arab Republic, the Republic of Yemen) and GCC countries (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, the United Arab Emirates), as shown in Figure V.3. Between 1970 and 2019, developing oil exporters experienced an average annual growth rate in income per capita of 0.13 percent. In the GCC, the average annual growth rate was -0.36 percent, which as explained above, is due to the large migration inflows which resulted in population growing at a faster pace compared to aggregate GDP. In contrast, among MENA oil importers (Djibouti, the Arab Republic of Egypt, Jordan, Lebanon, Morocco, Tunisia, the West Bank and Gaza), growth in income per capita averaged 2.4 percent per year.

In the same period, aggregate real GDP in developing oil exporters grew at an average yearly rate of 2.7 percent. In GCC countries, GDP grew at an annual rate of 3.7 percent. Among oil importers, GDP grew at an annual rate of 4.5 percent. This growth in aggregate GDP is lower than in a comparable region such as the East Asia and Pacific one (EAP). GDP grew at an average yearly rate of 3.5 percent in MENA in comparison to 4.8 percent in EAP. Singapore, Malaysia, and South Korea in particular exhibited an average yearly growth rate of more than 6 percent (6.5, 6.3 and 6.6, respectively). Indonesia and Vietnam grew at an average yearly rate of 5.7 and 5.8 percent respectively. Population growth also differs between the two regions. MENA's population exhibited an average yearly growth of 2.5 percent, more than double the rate of EAP (1.2 percent). Similarly, growth in income per capita was higher in EAP than in MENA. In the past 50 years, EAP experienced an average yearly growth of 3.5 percent in income per capita, while for MENA it was 1 percent. Income per capita grew at an average yearly rate of 4.2 percent in Vietnam, 4.4 percent in Singapore, and 5.7 percent in South Korea. In the median EMDE, over the same period, income per capita increased at an average rate of 4.5 percent per year.

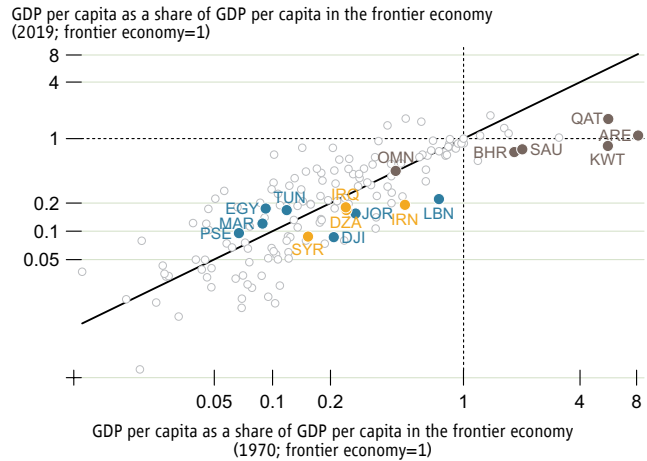
**Figure V.3.** In the past 50 years, income per capita in MENA oil importers has more than tripled...



Source: World Bank staff calculations based on data from the Penn World Table 10.01.

Note: DOI = developing oil importers (Djibouti, the Arab Republic of Egypt, Jordan, Lebanon, Morocco, Tunisia, The West Bank and Gaza). DOE = developing oil exporters (Algeria, the Islamic Republic of Iran, Iraq, the Syrian Arab Republic, and the Republic of Yemen). GCC = Gulf Cooperation Council (Bahrain, Kuwait, Oman, Qatar, and Saudi Arabia, United Arab Emirates). DZA = Algeria. BHR = Bahrain. DJI = Djibouti. EGY = Arab Republic of Egypt. IRQ = Iraq. IRN = Islamic Republic of Iran. JOR = Jordan. KWT = Kuwait. LBN = Lebanon. MAR = Morocco. OMN = Oman. QAT = Qatar. SAU = Saudi Arabia. SYR = Syrian Arab Republic. TUN = Tunisia. YEM = Republic of Yemen. PSE = The West Bank and Gaza. ARE = United Arab Emirates. In Figure V.3, the time series of aggregate GDP for each country is obtained by applying growth rates from national accounts to the level of GDP in purchasing power parity (PPP) in 2017—the growth rate from real GDP at constant (2017) national prices is applied to the expenditure side real GDP level at chained PPPs in 2017, then aggregate GDP is divided by total population. In Figure V.4, GDP per capita in both years are a share of GDP per capita in the US. Countries above the line reduced the gap in GDP per capita with the United States (the frontier economy) between 1970 and 2019. Both axes are in log scale. Different colors are used for the different MENA country groups.

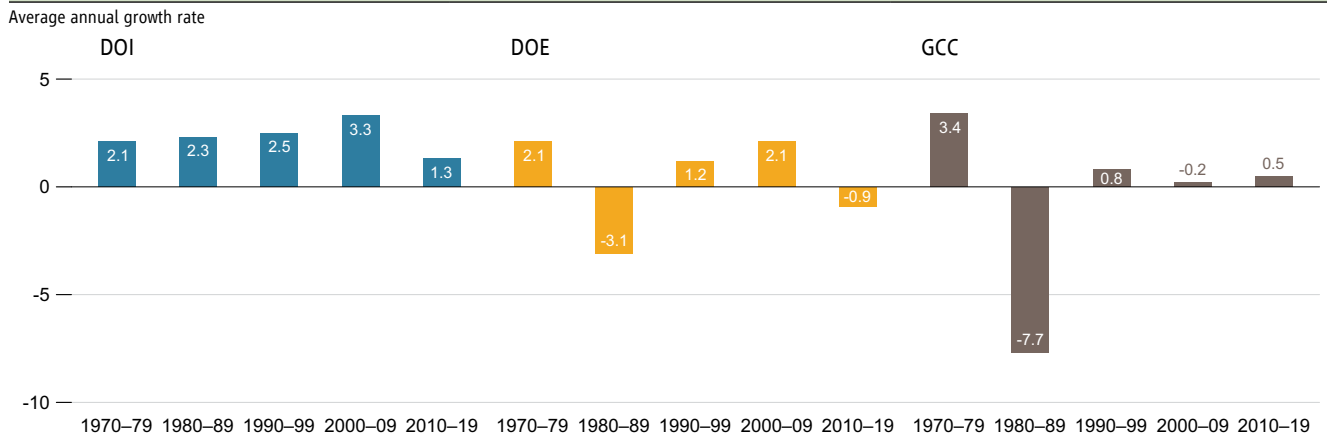
**Figure V.4.** ...while income per capita in the rest of MENA developing economies has lagged further behind the frontier.



The MENA region is far from the frontier in standards of living. The United States, consistent with the development literature, is considered the frontier economy—the one considered as a benchmark to catch up in terms of economic goals such as income per capita, consumption per capita, and productivity. On the one hand, MENA oil importers have exhibited significant improvements in income per capita in the past 50 years. Between 1970 and 2019, average GDP per capita among oil importers more than tripled (Figure V.3). This was driven by improvements in the Arab Republic of Egypt, Tunisia, Morocco, and the West Bank and Gaza (before the conflict in the Middle East, centered on Gaza). In these four economies, income per capita grew at an average rate of 2.9 percent per year in the 50-year period (2.5 percent in Morocco; 2.6 percent in Tunisia and the West Bank and Gaza; 3.1 percent in the Arab Republic of Egypt) and the distance to the frontier narrowed (Figure V.4). On the other hand, despite these marked improvements, GDP per capita in the top growth performers in the region still averages only 16 percent the level of the frontier economy. Moreover, in the rest of MENA developing economies, income per capita has fallen further behind the frontier, particularly in Lebanon and the Islamic Republic of Iran. In the GCC, income per capita averaged 80 percent of the frontier level in 2019, well below the 250 percent relative to the frontier that GCC countries exhibited in 1970. As described above, population changes driven by sizeable immigration flows partly explain the deterioration in average per capita income in the GCC. Population was 7.3 times bigger in the Gulf countries in 2019 than in 1970 as the number of migrants surged to over 30 million, while real aggregate GDP increased only by a factor of 6. As a share of aggregate GDP in the frontier economy, aggregate GDP in GCC economies increased from 9 percent in 1970 to 15 percent in 2019.

To catch up even to just 50 percent of the current level of the frontier in the next 30 years, GDP per capita in MENA developing economies would have to grow at an average rate of 3.8 percent per year. However, growth in income per capita among MENA oil importers has dramatically slowed to 1.3 percent per year between 2010 and 2019, from 3.3 percent the decade prior, while growth among oil exporters is highly volatile (Figure V.5). Unpacking why the region lags is a critical first step in identifying policy priorities to help boost growth and improve standards of living. This chapter offers a diagnosis of the drivers of growth for the MENA region using a development accounting exercise (Caselli 2005; Hsieh and Klenow 2010).

**Figure V.5.** Among oil importers, growth in income per capita has dramatically slowed; among oil exporters, growth is highly volatile.



Source: World Bank staff calculations using data from the Penn World Table 10.01.

Note: DOI = developing oil importers (Djibouti, the Arab Republic of Egypt, Jordan, Lebanon, Morocco, Tunisia, The West Bank and Gaza). DOE = developing oil exporters (Algeria, the Islamic Republic of Iran, Iraq, the Syrian Arab Republic, and the Republic of Yemen). GCC = Gulf Cooperation Council (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates). The bar graph reports average annual growth rates in income per capita for the three country groups in the MENA region, by decade. Aggregate GDP for each country is obtained by applying growth rates from national accounts to the level of GDP in purchasing power parity (PPP) in 2017—the growth rate from real GDP at constant (2017) national prices is applied to the expenditure side real GDP level at chained PPPs in 2017. Per capita GDP in each group is the sum of aggregate GDP across countries within the group divided by the sum of the population for each group.

## Development accounting for MENA

A development accounting approach can help pinpoint what *accounts* for the distance between the level of income of different countries—an important step to understand the determinants of standards of living in MENA countries. Development accounting decomposes the distance to the frontier income per capita into differences in factors of production and productivity (see Box 1):



The development accounting exercise starts with an equation (called a production function) in which output (income per capita) is determined by the interaction of physical capital and labor. The production function is then rearranged so that income per capita can be separated into the physical capital-to-output ratio, average human capital per worker, the employment-to-population ratio, and aggregate productivity. Each element is then scaled (divided) by values in the frontier economy to assess how much of the gap in income per capita is accounted for by differences in each individual component.

The development decomposition is an accounting approach and not a causal analysis—and in reality, the production factors are not independent of one another but are closely linked. Compared to other methods of estimating productivity in an economy (for example, Baqaee and Farhi 2019), this accounting approach is easier to use because it analyzes harmonized, standard, comparable cross-country data compiled from national accounts—which are publicly available. This means, however, that the availability and quality of macroeconomic data with measures on the different factors of production (physical capital, employment, human capital) is critical for a successful implementation of the methodology.

Development accounting requires inputs that are comparable across countries. This analysis of MENA is based on data from the Penn World Table version 10.01 (Feenstra et al. 2015). As a measure of income per capita, the development decomposition for MENA uses first the output-side real GDP at current purchasing power parities (PPPs) in 2017 dollars,

**Box V.1. Development accounting.**

Development accounting is a decomposition exercise, and the results are not to be interpreted causally. The availability and quality of comparable measures of factors of production across countries is critical to development accounting.

As in Hsieh and Klenow (2010), the exercise starts from a standard Cobb-Douglas production function:

$$Y = AK^\alpha (hL)^{1-\alpha},$$

$$Y = A^{1-\alpha} \left(\frac{K}{Y}\right)^{\frac{\alpha}{1-\alpha}} hL,$$

where  $Y$  is aggregate output;  $A$  denotes total factor productivity;  $K$  denotes physical capital;  $h$  denotes human capital per worker; and  $L$  denotes employment. The framework builds on Solow (1957). Dividing by population  $N$ , results in the following:

$$\frac{Y}{N} = A^{1-\alpha} \left(\frac{K}{Y}\right)^{\frac{\alpha}{1-\alpha}} h \left(\frac{L}{N}\right),$$

$$y = Zk^\gamma hl.$$

$y$  is GDP divided by total population;  $Z$  is the Total Factor Productivity scaled by  $1/(1-\alpha)$ ;  $k$  is the capital-output ratio;  $h$  is human capital per worker; and  $l$  is the employment rate.

Each component is then divided by values at the frontier:

$$\frac{y}{y'} = \left(\frac{Z}{Z'}\right) \left(\frac{k}{k'}\right)^\gamma \left(\frac{h}{h'}\right) \left(\frac{l}{l'}\right).$$

The computations assume  $\alpha=1/3$ , as is standard in the literature. From the Penn World Table 10.01, GDP is measured using *cgdpo*; total population is *pop*;  $k$  is *cn* divided by *cgdpo*;  $h$  is *hc*, which is the average years of schooling multiplied by a Mincerian return to education; and  $l$  is the ratio of numbers of persons engaged *emp* over total population *pop*. In the case of the GCC, this measure includes non-nationals. Values correspond to 2017.

The decomposition can also be expressed as consumption per capita because consumption is a share of income:

$$\frac{c}{c'} = \frac{wy}{w'y'} = \left(\frac{w}{w'}\right) \left(\frac{Z}{Z'}\right) \left(\frac{k}{k'}\right)^\gamma \left(\frac{h}{h'}\right) \left(\frac{l}{l'}\right),$$

where  $w$  is the average propensity to consume. Consumption from the Penn World Table is computed as *cs\_h\_c*, the share of household consumption at current PPP, times income per capita.

The decomposition that corrects for the contribution of rents from natural resources removes a share  $s_n$  from GDP per capita:

$$\frac{y(1-s'_n)}{y'(1-s_n)} = \frac{Z}{Z'} \left(\frac{k}{k'}\right)^\gamma \left(\frac{h}{h'}\right) \left(\frac{l}{l'}\right).$$

divided by population.<sup>38</sup> Importantly, in the case of the GCC, population includes non-nationals. For physical capital, it uses the capital stock at current PPPs in 2017 dollars. The employment-to-population ratio is the number of working persons divided by the total population (both including non-nationals in the case of the GCC); human capital is an index of the average years of schooling times a rate of return to education. As an alternative measure of standards of living, the development accounting uses consumption per capita, as detailed below. This measure is the share of household consumption of the output-side real GDP at current PPPs, divided by population.

<sup>38</sup> PPPs convert different currencies to a common currency and, in the process of conversion, equalize their purchasing power by eliminating differences in the price levels of goods and services between economies. They show, with reference to a base economy, the relative price of a given basket of goods and services in each of the economies being compared (World Bank ICP 2021).

Physical capital, human capital per worker, and employment (as a share of population, including non-nationals in the GCC) are measured directly. But aggregate productivity (total factor productivity, or TFP) is a residual—the remaining or unexplained portion of differences in income per capita. This residual captures the efficiency in the use of inputs of production. Two economies with similar population sizes and similar aggregate endowments of physical capital, human capital per worker, and employment would have different levels of income per capita if one economy is less efficient (has lower TFP) in the use of available inputs. TFP also reflects the effect of technology, worker knowledge, and other factors that cannot be measured on changes in long-term output.

Although the results of development accounting should not be interpreted as causal, the exercise helps assess the relative importance of each determinant of growth in driving distances from the frontier income per capita (Caselli 2005; Hsieh and Klenow 2010). Identifying these differences can help determine potential policy priorities. If gaps in the stock of physical capital explain a large share of differences in income per capita relative to the frontier, for example, then one policy priority could be to increase the rate of private investment in physical capital. Similarly, if low employment-to-population ratios explain a large share of the distance in standards of living from the frontier, then steps to increase rates of labor force participation could be one of the priorities to boost standards of living. Importantly, the availability and quality of comparable measures of factors of production across countries is critical for a proper assessment of the different determinants of growth.

In development accounting, income per capita is a measure of the productive capacity of an economy. In the case of MENA oil exporters, however, GDP per capita might not accurately reflect the efficiency in the use of available resources nor the role of different inputs of production, such as physical capital and employment, for several reasons.

First, in these economies, natural resources account for a significant share of activity. In the past 10 years, for example, the oil sector has accounted for 55 percent of real GDP on average among MENA developing exporters and 31 percent in the GCC.<sup>39</sup> GDP per capita, then, sometimes moves with the booms and busts in the price of oil (Figure V.6), because it affects their terms of trade. Importantly, among MENA oil exporters, GDP per capita partly reflects the choice of when to extract resources (now or in the future). Contractions in GDP might then reflect voluntary oil production cuts and expansions may reflect voluntary increases in output. For example, in October 2022 oil producers that are members of OPEC+ announced temporary cuts in production that were followed by further reductions in April 2023, June 2023, and November 2023.<sup>40</sup> On several occasions, the duration of the cuts has been extended.<sup>41</sup> These cuts have been reflected in real GDP and real GDP per capita growth and growth forecasts for MENA oil exporters and the region as a whole.

Second, in the GCC in particular, the trend in GDP per capita over the past 50 years would suggest a deterioration in standards of living that is not realistic, from \$63,165 on average in 1970 to \$52,897 in 2019 (a 16.25 percent decline; Figure V.6), after a peak above \$80,000 in the mid-1970s. As explained above, the sizeable increase in population in the GCC due to the rise in migration as a result of the oil boom (the number of migrants in the GCC surged from 241,000 in 1960 to over 30 million by 2020) partly explains the decline.

Finally, the development accounting exercise for MENA oil exporters using income per capita would likely result in an overestimation of aggregate productivity if the role of the oil sector is not properly incorporated.

Consumption per capita most accurately reflects average material well-being, because this standard-of-living measure only considers purchases for personal use and excludes any contribution from natural resources—which does not necessarily reflect expenditures that directly benefit households. Consumption per capita tends to be less volatile than

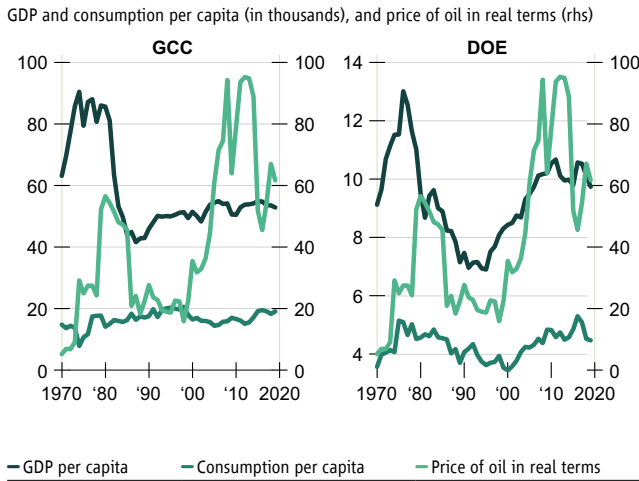
<sup>39</sup> Source: World Bank staff calculations based on data from Haver analytics and the Central Banks of Libya and the Syrian Arab Republic.

<sup>40</sup> OPEC is the Organization of the Petroleum Exporting Countries (Algeria, Equatorial Guinea, Gabon, the Islamic Republic of Iran, Iraq, Kuwait, Libya, Nigeria, the Republic of the Congo, Saudi Arabia, the United Arab Emirates and Venezuela). OPEC+ adds a number of other oil producers that signed an agreement with OPEC, the largest of which is Russia.

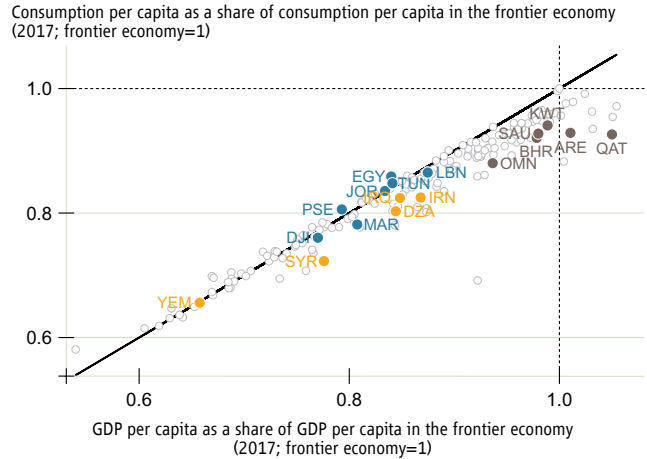
<sup>41</sup> Source: OPEC Press Releases, Emerging MarketWatch, Other News Outlets.

income per capita (Figure V.6). Moreover, in most economies, the differences between income and consumption per capita (both relative to the frontier) are not quantitatively significant (Figure V.7). Finally, although income per capita among oil exporters partly reflects the choice about the optimal time to extract resources, consumption per capita tends to be less affected by voluntary production choices. Indeed, the difference between income per capita and consumption per capita will tend to reflect both price shocks and voluntary production cuts and increases.

**Figure V.6.** In MENA oil exporters, GDP per capita varies with the price of oil, but consumption per capita is less volatile.



**Figure V.7.** The difference between income per capita and consumption per capita, both relative to the frontier economy, is not quantitatively significant.



Sources: World Bank staff calculations based on data from the World Bank commodity price data 2023 (Figure V.6) and Penn World Table 10.01 (Figures V.6 and V.7). Note: Figure V.6: DOE = developing oil exporters (Algeria, the Islamic Republic of Iran, Iraq, the Syrian Arab Republic, the Republic of Yemen). GCC = Gulf Cooperation Council (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, the United Arab Emirates). The time series of aggregate GDP for each country is obtained applying growth rates from national accounts to the level of GDP in PPP in 2017—that is, the growth rate from real GDP at constant (2017) national prices is applied to the expenditure side real GDP level at chained purchasing power parities (PPPs) in 2017. Aggregate GDP for country groups is then computed as the sum of GDP across countries in a group divided by the sum of population in each country group. The price of oil reports annual average crude price of oil (dollar per barrel) in real 2010 U.S. dollars. Figure V.7: YEM = Republic of Yemen. SYR = Syrian Arab Republic. DJI = Djibouti. MAR = Morocco. PSE = The West Bank and Gaza. EGY = The Arab Republic of Egypt. JOR = Jordan. TUN = Tunisia. DZA = Algeria. IRQ = Iraq. IRN = the Islamic Republic of Iran. LBN = Lebanon. OMN = Oman. BHR = Bahrain. SAU = Saudi Arabia. KWT = Kuwait. ARE = United Arab Emirates. QAT = Qatar. Consumption per capita is the share of household consumption at current PPPs, multiplied by the expenditure side real GDP level at chained PPPs in 2017. Aggregate consumption is then divided by population. Countries below the 45-degree line have a higher GDP per capita than consumption per capita, both measures relative to the frontier (the United States).

Similarly to income per capita, differences in aggregate productivity relative to the frontier economy can also be captured by breaking down differences in *consumption* per capita:



In this decomposition, consumption per capita is separated into the propensity to consume times income per capita, which is written as before (aggregate TFP, capital-output ratio, human capital per worker, and the employment rate).<sup>42</sup> Each value, including the propensity to consume, is then scaled (divided) by values at the frontier, and TFP is obtained as a residual.

Figures A1 through A3 in the appendix show that among most MENA developing economies, the average propensity to consume has fluctuated over the past 50 years at around 70 percent of the level of the frontier economy. Consistent with this evidence, the decomposition of consumption per capita in the following section treats propensities to consume across countries as constant (which would imply a ratio of one) to focus on the first order contributions of factors of production to differences relative to the frontier. The following section also presents decompositions using income per capita when removing rents from natural resources from GDP per capita.

<sup>42</sup> Propensity to consume is the share of income that consumers spend rather than save.

## Increasing employment rates and enhancing aggregate productivity are critical to boosting growth in the region

Income per capita averages 18 percent of the frontier level in both developing oil exporters and importers and 90 percent in the GCC.<sup>43</sup> The decomposition results in Table V.1 show the distance to the frontier for each MENA country. The United Arab Emirates (UAE), for instance, exhibit an income per capita that is 10 percent higher than the frontier level. The United Arab Emirates have a capital-output ratio that is 40 percent higher than the corresponding ratio for the frontier economy; an employment rate that is 25 percent higher; and an index of years of schooling that is 73 percent of the level at the frontier. The level of residual aggregate productivity (TFP) is 86 percent of that of the frontier. Algeria, by contrast, has an income per capita that is 19 percent of the level at the frontier, while aggregate productivity is almost half that of the frontier. At a similar distance from the frontier (18 percent of income per capita at the frontier), Jordan has an employment-to-population ratio that is half of the frontier ratio and an aggregate productivity that is 48 percent of the frontier.

The decomposition in Table V.1 does not take into account the role of the oil sector in driving GDP per capita. Table V.2 presents a decomposition that removes from GDP per capita the excess returns (rents) from natural resources (more precisely, by multiplying GDP per capita by one minus the share of rents from natural resources).<sup>44</sup> GDP per capita in Kuwait, for example, drops to 59 percent of the frontier level when rents from natural resources are excluded—from 94 percent when they are not. In the exercise in Table V.2, residual TFP in the GCC drops below the benchmark levels. For example, for Saudi Arabia, TFP decreases to 86 percent the level of the frontier and for Kuwait it drops to 65 percent.

**Table V.1.** Breaking down income per capita for the Middle East and North Africa (values relative to the frontier).

Country	Income per capita	Capital-output ratio	Index of years of schooling	Emp-to-pop ratio	Aggregate TFP
	(1)	(2)	(3)	(4)	(5)
<b>Frontier economy</b>	1	1	1	1	1
<b>Republic of Yemen</b>	0.02	1.97	0.46	0.39	0.07
<b>Syrian Arab Republic</b>	0.11	1.01	0.69	0.58	0.28
<b>Morocco</b>	0.13	1.20	0.51	0.66	0.31
<b>Tunisia</b>	0.18	0.85	0.70	0.67	0.46
<b>Jordan</b>	0.18	0.95	0.77	0.50	0.48
<b>Iraq</b>	0.19	0.84	0.61	0.46	0.82
<b>Algeria</b>	0.19	1.14	0.62	0.56	0.49
<b>Arab Republic of Egypt*</b>	0.20	1.08	0.70	0.55	0.48
<b>Islamic Republic of Iran</b>	0.23	1.28	0.65	0.62	0.45
<b>Saudi Arabia</b>	0.81	1.06	0.71	0.82	1.31
<b>Bahrain</b>	0.82	1.20	0.60	1.06	1.07
<b>Kuwait</b>	0.94	1.02	0.60	1.19	1.29
<b>United Arab Emirates</b>	1.10	1.40	0.73	1.25	0.86
<b>Qatar</b>	1.83	1.14	0.83	1.56	1.25

Source: World Bank, staff calculations based on data from the Penn World Table 10.01.

Note: The table reports values of each variable relative to the United States (frontier economy) for 2017. Income per capita is the output-side real GDP at current purchasing power parities (PPPs) for 2017, divided by population. Capital-output ratio is the ratio of the stock of to GDP raised to the  $\alpha/(1-\alpha)$  which equals 0.5. The index of years of schooling is based on the average years of schooling and an assumed rate of return to education. The employment-to-population ratio is the number of persons working divided by the total population. Total factor productivity (TFP) is computed as the remaining portion of differences in income per capita. The product of column (2) to (5) equals Income per capita (column 1). Countries are sorted in income per capita levels, in ascending order.

\* For the Arab Republic of Egypt, the capital-output ratio is the predicted value of the regression of the capital-output ratio on income per capita (for 179 countries). TFP, being a residual, is adjusted for the Arab Republic of Egypt.

43 Data for 2017. The development accounting decomposition in this chapter employs data for 2017, which is the last benchmark year in the Penn World Table 10.01 when the International Comparison Program collected prices to construct purchasing power parity exchange rates.

44 Table A2 in the appendix reports the rents from natural resources as a share of GDP for each MENA country.

**Table V.2.** Breaking down income per capita for the Middle East and North Africa, adjusted by the share of natural resources rents (values relative to the frontier)

Country	Income per capita (removing rents from natural resources)	Capital-output ratio	Index of years of schooling	Emp-to-pop ratio	Aggregate TFP
	(1)	(2)	(3)	(4)	(5)
<b>Frontier economy</b>	1	1	1	1	1
<b>Republic of Yemen</b>	0.02	1.98	0.46	0.39	0.07
<b>Syrian Arab Republic</b>	0.11	1.02	0.69	0.58	0.26
<b>Morocco</b>	0.12	1.22	0.51	0.66	0.30
<b>Iraq</b>	0.12	1.08	0.61	0.46	0.39
<b>Algeria</b>	0.16	1.24	0.62	0.56	0.38
<b>Tunisia</b>	0.18	0.86	0.70	0.67	0.44
<b>Jordan</b>	0.18	0.96	0.77	0.5	0.48
<b>Islamic Republic of Iran</b>	0.19	1.41	0.65	0.62	0.34
<b>Arab Republic of Egypt*</b>	0.19	1.10	0.70	0.55	0.45
<b>Kuwait</b>	0.59	1.28	0.60	1.19	0.65
<b>Saudi Arabia</b>	0.61	1.21	0.71	0.82	0.86
<b>Bahrain</b>	0.73	1.27	0.60	1.06	0.90
<b>United Arab Emirates</b>	0.95	1.51	0.73	1.25	0.68
<b>Qatar</b>	1.49	1.26	0.83	1.56	0.92

Source: World Bank, *World Development Indicators* (WDI) and staff calculations based on data from the Penn World Table 10.01.

Note: The table reports values of each variable relative to the United States (frontier economy) for 2017. Income per capita is the output-side real GDP at current purchasing power parities (PPPs), adjusted by the share of natural resources rents, divided by population. The data for total natural resources rents (as a percent of GDP) comes from the WDI. The capital-output ratio is the ratio of stock capital to GDP, adjusted by the share of natural resources rents, raised to  $\alpha/(1-\alpha)$ , which equals 0.5. The index of years of schooling is based on the average years of schooling and an assumed rate of return to education. The employment-to-population ratio is the number of working persons divided by the population. Total factor productivity (TFP) is computed as the remaining portion of differences in income per capita. The product of columns (2) to (5) equals Income per capita (column 1). Countries are sorted in income per capita levels (removing rents from natural resources, ascending order).

\* For the Arab Republic of Egypt, the capital-output ratio is the predicted value of the regression of the capital-output ratio on income per capita for 179 countries. TFP, a residual, is adjusted for the Arab Republic of Egypt.

This indicates that a significant portion of their residual economic productivity in Table V.1 is tied to natural resource wealth rather than true economic efficiency in exploiting available inputs.

Standards of living in the MENA region, when measured by consumption per capita, average only 19 percent the level of the frontier (12 percent among developing oil exporters, 19 percent among developing oil importers, and 45 percent among Gulf Cooperation Council countries). Table V.3 shows the results from the decomposition across MENA of this distance from the frontier. For example, Saudi Arabia's consumption per capita is 46 percent of that of the benchmark economy. The distance in consumption per capita from that of the frontier is the product of the distance for each of the factors of production from the frontier. Saudi Arabia, for example, has a capital-output ratio that is 6 percent higher than the corresponding ratio for the frontier; an index of years of schooling that is 71 percent of the level of the frontier; and an employment rate that is 82 percent of the frontier level. The level of residual aggregate productivity is then 75 percent of the residual in the frontier economy (Column 1 in Table V.3 divided by the product of columns 2 through 4). The Islamic Republic of Iran has a consumption per capita of US\$6,558, which is 16 percent of the benchmark level (see Table A1 in the Appendix), while aggregate productivity is 30 percent of the frontier level. Morocco, with its low levels of index of years of schooling (51 percent of the frontier level) has an aggregate productivity that is 24 percent of that of the frontier level, while consumption per capita is 10 percent of the frontier level.

**Table V.3.** Breaking down consumption per capita for the Middle East and North Africa countries (values relative to the frontier).

Country	Consumption per capita	Capital-output ratio	Index of years of schooling	Emp-to-pop ratio	Aggregate TFP
	(1)	(2)	(3)	(4)	(5)
<b>Frontier economy</b>	1	1	1	1	1
<b>Republic of Yemen</b>	0.03	1.97	0.46	0.39	0.07
<b>Syrian Arab Republic</b>	0.05	1.01	0.69	0.58	0.13
<b>Morocco</b>	0.10	1.20	0.51	0.66	0.24
<b>Algeria</b>	0.12	1.14	0.62	0.56	0.31
<b>Iraq</b>	0.15	0.84	0.61	0.46	0.66
<b>Islamic Republic of Iran</b>	0.16	1.28	0.65	0.63	0.30
<b>Jordan</b>	0.17	0.95	0.77	0.50	0.47
<b>Tunisia</b>	0.2	0.85	0.70	0.67	0.5
<b>Arab Republic of Egypt*</b>	0.22	1.10	0.70	0.55	0.52
<b>Bahrain</b>	0.43	1.20	0.60	1.07	0.56
<b>Saudi Arabia</b>	0.46	1.06	0.71	0.82	0.75
<b>Qatar</b>	0.46	1.14	0.83	1.56	0.31
<b>United Arab Emirates</b>	0.47	1.40	0.73	1.25	0.36
<b>Kuwait</b>	0.53	1.02	0.60	1.19	0.73

Source: World Bank, staff calculations based on data from the Penn World Table 10.01.

Note: The table reports values of each variable relative to the United States (frontier economy). The year of analysis is 2017. Consumption per capita is the product of the share of household consumption at current purchasing power parities (PPPs) and the output-side real GDP at current purchasing power parities (PPPs), divided by population. Capital-output ratio is the ratio of stock capital to GDP raised to the  $\alpha/(1-\alpha)$  which equals 0.5. The index of years of schooling is based on the average years of schooling and an assumed rate of return to education. The employment-to-population ratio is the number of persons with jobs divided by the population. Total factor productivity (TFP) is computed as the remaining portion of differences in consumption per capita. The product of columns (2) to (5) equals consumption per capita (column 1). Countries are sorted in levels of consumption per capita (ascending order).

\* For the Arab Republic of Egypt, the capital-output ratio is the predicted value of the regression of capital-output ratio on consumption per capita for 179 countries. TFP, being a residual, is adjusted for the Arab Republic of Egypt.

When standards of living are measured as consumption per capita, low employment-to-population ratios and low aggregate productivity account for most of the difference of living standards between MENA and the frontier economy. Figure V.8 computes the percentage contribution of aggregate TFP and each production input to the distance in standard of living from the frontier economy—as proxied by consumption per capita.<sup>45</sup> Panel A shows the results for each MENA country for which data are available; Panel B averages the results across MENA country groups.

For example, in Tunisia differences in aggregate productivity and the employment-to-population ratio relative to the frontier economy together account for 61 percent (30 percent for productivity and 31 percent for the employment-to-population ratio) of the distance to frontier living standards. The capital-output ratio accounts for 18 percent and years-of-schooling per worker account for 21 percent. In Iraq, a low employment-to-population ratio accounts for more than 40 percent of the differences in standards of living, while aggregate productivity accounts for 20 percent. In contrast, in the United Arab Emirates, neither the employment-to-population ratio nor the capital output ratio account for differences in consumption per capita relative to the frontier. Aggregate productivity explains 67 percent and years of schooling-per-worker explain 33 percent of the difference.

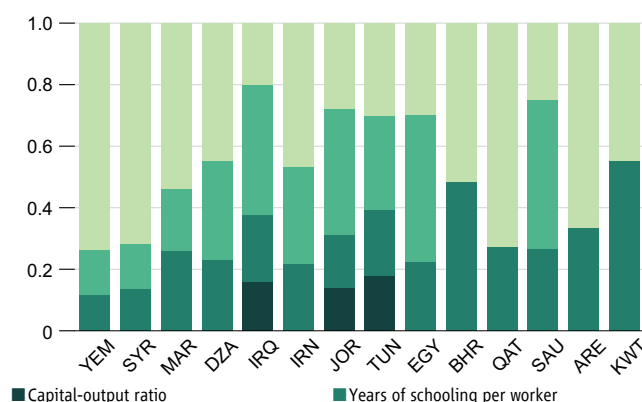
<sup>45</sup> See the notes in Figure V.8 for information on how the shares are computed.

The importance of aggregate productivity, or residual TFP, in accounting for differences in standards of living in developing countries has been widely established in the development literature (Caselli 2005, Hsieh and Klenow 2010). In MENA oil exporters, TFP accounts for half of the distance of consumption per capita from the frontier. However, among developing oil importers, TFP and employment rates account for similar shares of the distance of these countries from the frontier. The contribution of employment-to-population ratios in MENA developing economies is large compared to other EMDEs—35 percent in developing oil importers and 27 percent in developing oil exporters, compared to 16 percent in EMDEs.

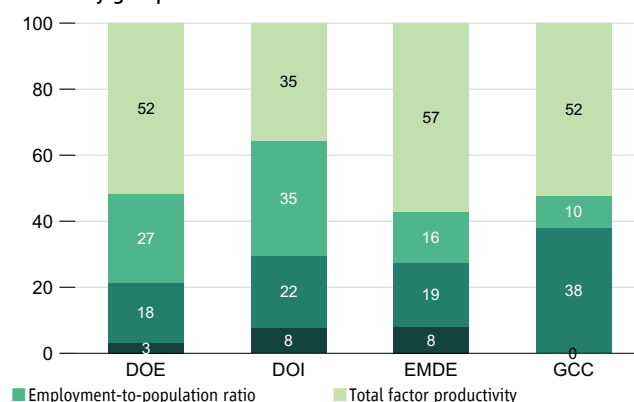
**Figure V.8.** Low employment-to-population ratios and low aggregate productivity together explain most of the distance in standards of living in MENA from the frontier.

Contribution to distance from the frontier

a. Percent contribution of TFP and each production input in MENA countries



b. Percent contribution of TFP and each production input in MENA country groups

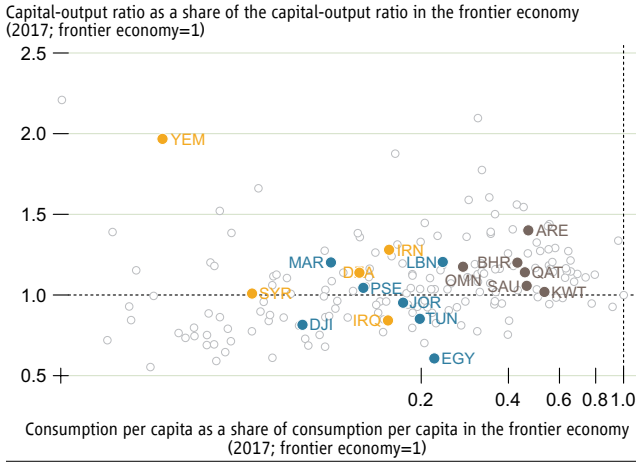


Source: World Bank, staff calculations based on data from the Penn World Table 10.01.

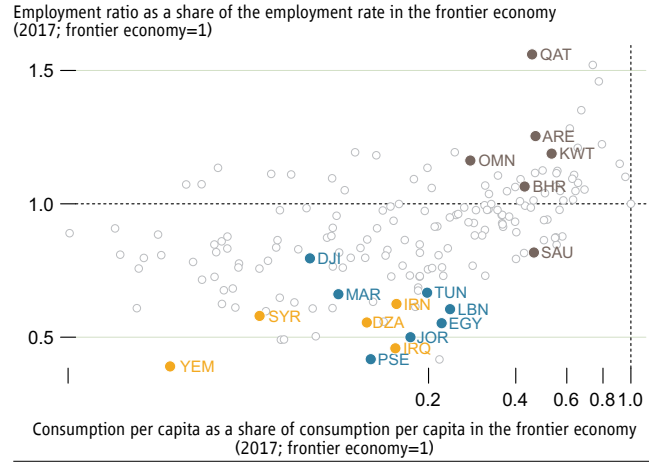
Note: DOI = developing oil importers, (Djibouti, the Arab Republic of Egypt, Jordan, Lebanon, Morocco, Tunisia, the West Bank and Gaza). DOE = developing oil exporters (Algeria, the Islamic Republic of Iran, Iraq, the Syrian Arab Republic, the Republic of Yemen). GCC = Gulf Cooperation Council (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, the United Arab Emirates). The methodology to compute the shares adapts the computations in Jones (2016). First, the ratios in Table V.3 are inverted. To obtain the share attributed to differences in the employment rate, the inverse of the ratio of employment rates is divided by the product of the inverse of the ratios of the years of schooling index, the capital-output ratio, and TFP. The rest (the share of the distance to the frontier attributed to differences in schooling, physical capital, and aggregate productivity) is allocated by dividing the inverse of each corresponding ratio to the product of the inverse ratios of the years of schooling index, the capital-output ratio, and TFP. Ratios that are above 1 exceed the value in the United States (frontier economy) and are set to zero in this calculation. For the list of country abbreviations, see Figure V.7.

Development accounting decompositions back to 1970 indicate that the role of aggregate productivity in explaining the low levels of consumption per capita in MENA has increased over time. In other words, aggregate productivity has become a bigger hurdle to boosting standards of living over the past 50 years. In that period, across the three MENA groups, the contribution of capital-output ratios in the decomposition decreased while the contribution of (low) employment-to-population rates remained constant. In 1970, the contribution of aggregate productivity among developing oil exporters (DOE) was 8 percent, while among developing oil importers (DOI) this contribution was 10 percent. This is low relative to other emerging economies, in which aggregate productivity accounted for 30 percent of the distance in consumption per capita to the frontier. In the same year, the contribution of (low) employment-to-population rates was of 39 percent among DOE, 31 percent among DOI, and 44 percent in the GCC. In other emerging and developing economies, the contribution of employment rates was only of 17 percent. In that year, the capital-output ratio was contributing around 20 percent for the three MENA groups (18 in DOE, 25 in DOI, and 22 in GCC), in line with the contribution of 24 percent in the median EMDE. By 1990, the contribution of the different factors remained quite stable relative to 1970 levels, except for an increase from 10 to 20 percent in the contribution of aggregate productivity in DOI countries with a comparable reduction in the contribution of physical capital. By 2010, MENA economies exhibited a sharp increase in the contribution of aggregate productivity, and a sharp decrease in the contribution of capital-output ratios. Differences in aggregate productivity accounted for 34 percent of the distance from the consumption per capita levels at the frontier in DOE countries. In DOI, the contribution was of 46 percent, and in the GCC, 42 percent. The contribution of the capital-output ratio in DOE was 10 percent, 3 percent in DOI, and 14 percent in the GCC. The contribution of employment-to-population ratios remained high and stable for DOE and DOI, at 31 and 28 percent, respectively, but it decreased for the GCC to 9 percent.

**Figure V.9.** The Arab Republic of Egypt exhibits the 3rd lowest capital-output ratio among 180 economies.

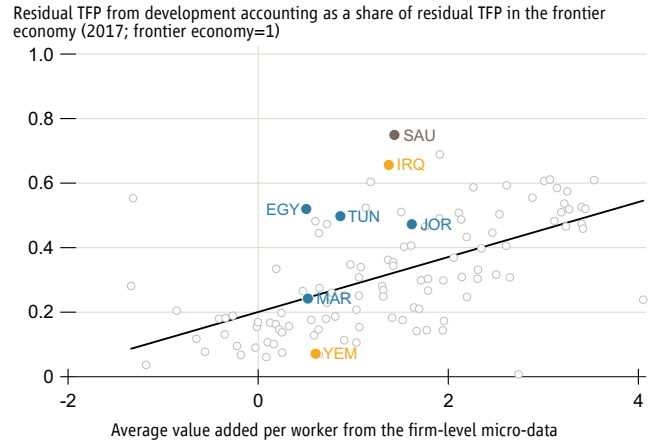


**Figure V.10.** MENA developing economies exhibit the lowest employment-to-population ratios when compared to income peers.



Because TFP is a residual, its computation is sensitive to errors in the measuring of production factors. Combining analysis of micro and macro data can help explain the direction of any such error. In MENA developing economies, this analysis suggests that the development accounting decomposition might overstate the size of the TFP residual because there is a potentially substantial error in the measures of both physical capital and employment. In other words, residual aggregate productivity among MENA developing economies might be even lower (as a share of aggregate productivity in the frontier) than the results from the development accounting exercise.<sup>46</sup> Figure V.9 shows the cross-country variation in capital-output ratios. In the Arab Republic of Egypt, the observed capital-output ratio is 61 percent of that of the frontier, which is significantly lower than the level of Tunisia, the second-lowest ratio among income peers.<sup>47</sup> Historically low investment rates drive this low ratio of physical capital to output. There is recent evidence, reported by the Ministry of Planning, that the national accounts in the Arab Republic of Egypt, the source of data for the Penn World Table, might not capture the full amount of private investment.<sup>48</sup> The development accounting exercise in Tables V.1, V.2, and V.3 and Figure V.8 therefore employs an imputed measure of the capital-output ratio for the Arab Republic of Egypt

**Figure V.11.** The productivity measure from the accounting exercise (TFP residual) for most MENA countries is significantly above average when compared to productivity estimates from micro-data.



Sources: World Bank, Enterprise Surveys and staff calculations based on data from the Penn World Table 10.01.  
 Note: DZA= Algeria. BHR = Bahrain. DJI = Djibouti. EGY = Arab Republic of Egypt. IRQ = Iraq. IRN = Islamic Republic of Iran. JOR = Jordan. KWT= Kuwait. LBN = Lebanon. MAR = Morocco. OMN =Oman. QAT = Qatar. SAU = Saudi Arabia. SYR = Syrian Arab Republic. TUN = Tunisia. YEM = Republic of Yemen. PSE = The West Bank and Gaza. ARE = United Arab Emirates. Figure V.9 shows the relationship between consumption per capita and capital-output ratio, relative to the United States for 2017. Consumption per capita is the product of the share of household consumption at current purchasing power parities (PPPs) and the output-side real GDP at current PPPs (2017). Capital-output ratio is the square root of the ratio between stock capital and the employment-to-population ratio, relative to the United States. The employment-to-population ratio is the number of persons working divided by the population. Figure V.11 shows the relationship between two measures of productivity. Residual TFP (y-axis) is computed as the remaining portion of differences in consumption per capita. This measure comes from the development accounting exercise in Table V.3. The average value added per worker (x-axis) is the country fixed effect in a regression of value added per worker on country, sector, and size fixed effects. The data are for the latest year available in each country and encompass only firms in the manufacturing sector. The black line is the fitted line of the association.

46 Inklaar, R., & Woltjer, J. (2021) discuss the case of the Arab Republic of Egypt in 2017, where aggregate productivity (from the Penn World Table v. 9.1) was calculated to be 23 percent higher than that of the United States. The authors emphasize the difference in the Arab Republic of Egypt’s employment-to-population and capital-output ratios compared to other MENA countries and income peers. Thus, the authors introduce the possibility that the Arab Republic of Egypt’s statistics are mismeasured, which led to a higher aggregate productivity that is higher than that of the United States.

47 The ratio in the Arab Republic of Egypt is only 70 percent of the ratio in Tunisia.

48 On April 2, 2024, the Ministry of Planning and Economic Development announced that by enhancing the methodology for calculating private investment within the national accounts system, “private sector investment in the Arab Republic of Egypt has been recalculated at 499.2 billion Egyptian pounds for the fiscal year 2022/2023, representing a substantial increase from previous estimates. This adjustment elevates the share of private investment in the total investment to 36.4 percent, up from 25.5 percent.”

that is 81 percent higher than the value derived from the data. The observed capital-output ratio is regressed on consumption per capita (in logs) in the sample of 179 countries (the Arab Republic of Egypt excluded). The predicted value of the capital-output ratio from this regression is then the imputed measure for the Arab Republic of Egypt. This predicted value is 109 percent relative to the U.S., 81 percent higher than the value observed in the data.

Figure V.10 shows that there is also potential measurement error in the number of workers employed. MENA developing economies exhibit the lowest employment-to-population ratios among 177 countries. The low employment-to-population ratio is mainly driven by low employment among women, which is 16 percent in the region, the lowest in the world.<sup>49</sup> Yet, Arezki et al. (2020)—using data from nationally representative household-level surveys in the Arab Republic of Egypt, Jordan, and Tunisia—document potential mismeasurement of employment among women and in rural areas. They recalculate rates of female labor force participation (FLFP) using an extended definition of employment—which unlike the market definition, considers individuals as employed if they engage in either market or subsistence economic activities. The authors find that, using the extended definition of employment, FLFP rates are potentially much higher than the market definition in Tunisia and the Arab Republic of Egypt, where the incidence of subsistence work is particularly high. In Tunisia (for 2014), the correction would increase FLFP rates by 5 percentage points, from 26 to 31 percent. For the Arab Republic of Egypt, in 2018, the difference would be as large as 17 percentage points—from 24 to 41 percent. Rates of unemployment, particularly female unemployment, would also be lower if subsistence work were taken into account. The authors do not find that using the extended definition resulted in substantial differences for Jordan. These findings are also in line with recent work by Keo, Krafft, and Fedi (2022) and Assaad and Krafft (2024), which employ data on household enterprises to detect female employment.

If physical capital (in the case of the Arab Republic of Egypt) and employment (among MENA developing economies) are under-reported, then the measure of TFP would be over-estimated because it is computed as the residual of a decomposition exercise. Using an alternative approach to gauging productivity, Figure V.11 compares this residual aggregate productivity to estimates of value-added per worker from firm-level surveys that are comparable across countries. The firm-level estimates correct for differences in the composition of the sample, and only consider firms in manufacturing.<sup>50</sup> The figure shows that for most MENA countries, the TFP residual is above average compared to estimates from micro-data, which points to potential under-measurement of factors of production. In other words, low productivity in MENA might actually be a bigger hurdle to growth than what is suggested in the macro data.

The development accounting exercise points to increasing employment-to-population ratios and aggregate productivity as key levers for boosting growth. The rest of this chapter focuses first on the gains from increasing the employment-to-population ratios by closing gender gaps in employment in MENA, then on how improving resource allocation and the infusion of technology and ideas can increase aggregate productivity.

## Closing the gender employment gap would increase income per capita

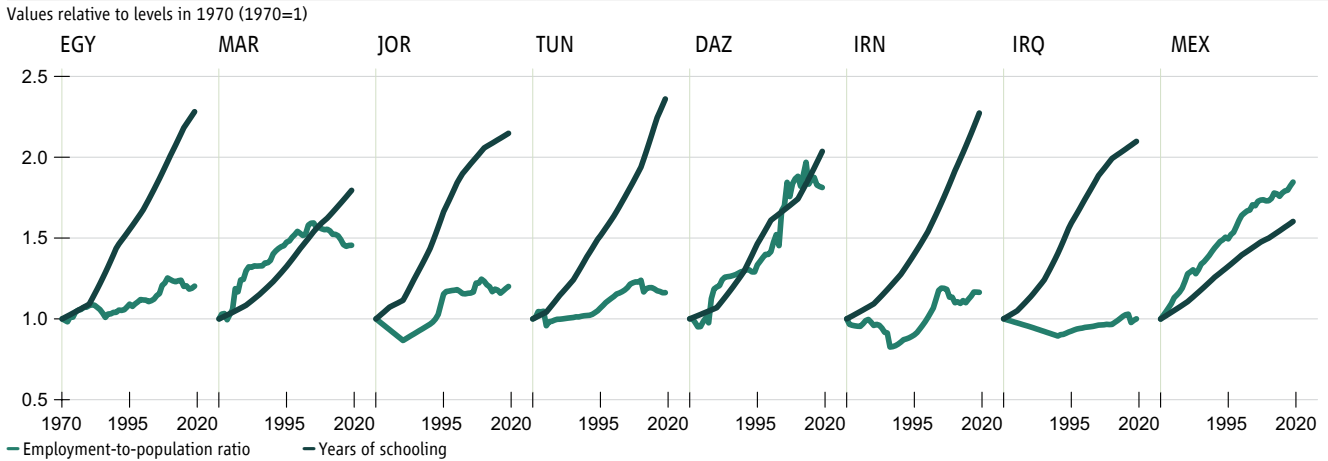
During the past 50 years, employment rates in the region were stagnant while years of schooling rapidly increased. Figure V.12 shows that although employment-to-population ratios did not increase much in most MENA developing economies between 1970 and 2019 (the exception is Algeria), the index of years of schooling more than doubled. In the Arab Republic of Egypt, for example, the employment rate increased from 22 percent in 1970 to 27 percent in 2019, while the index of years of schooling more than doubled—from 1.17 in 1970 to 2.68 in 2019. Similarly, the Islamic

<sup>49</sup> Source: Data for 2021 is from *World Development Indicators*. The employment rate in South Asia for the same year is 25 percent.

<sup>50</sup> The estimations use 2-digit sector and size fixed effects. See notes in Figure V.11.

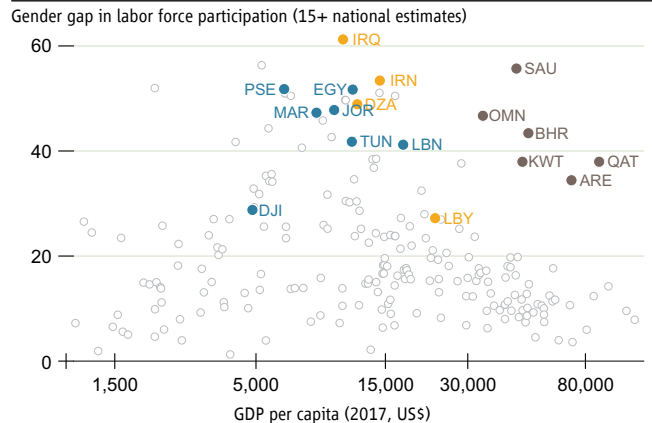
Republic of Iran’s employment-to-population ratio of 25 percent in 1970 grew to 29 percent in 2019, while the index of years of schooling increased to 2.52 in 2019 from 1.10 in 1970.<sup>51</sup> Relatively stagnant employment rates coupled with rising rates of educational attainment result in a suboptimal use of the talent of people living the MENA region. When people become more skilled but employment rates remain low, it is the equivalent of leaving money on the table.

**Figure V.12.** Employment rates in the region have not kept pace with gains in years of schooling in the past 50 years.



Such a missed opportunity is particularly glaring when considering female labor force participation. Gender gaps in both labor force participation and unemployment are strong contributors to the low levels of employment in the region. Indeed, MENA exhibits the lowest rates of female labor force participation in the world (19 percent on average versus a 28 percent average for South Asia, which is the second lowest). The gender gap in rates of labor force participation in MENA is the highest among income peers (Figure V.13). Accounting for women’s engagement in subsistence economic activities would only increase rates of FLFP from 24 percent to 41 percent in the Arab Republic of Egypt and from 26 percent to 31 percent in Tunisia (Arezki et al. 2020), still significantly less than the roughly 56 percent rate in the frontier.<sup>52</sup> The unemployment rate for women is 20 percent in MENA, higher than the male rate of 12 percent and higher than the 9 percent among women in other EMDEs, where the unemployment rate among men is 8 percent.<sup>53</sup> At the same time, young women have increasingly performed well (and often better) in schooling than young men, thus increasing the future opportunity cost of low female participation in economic activity (Fiuratti et al. 2024). Avitabile, D’Souza, Gatti, and Weedon (2019) report that in Tunisia, for example, girls

**Figure V.13.** MENA countries exhibit some of the largest gaps between men and women in observed rates of labor force participation.



Sources: World Bank, *World Development Indicators* and staff calculations based on data from the Penn World Table 10.01.  
 Note: EGY = Arab Republic of Egypt. JOR = Jordan. TUN = Tunisia. YEM = Republic of Yemen. SYR = Syrian Arab Republic. DJI = Djibouti. MAR = Morocco. PSE = The West Bank and Gaza. DZA = Algeria. IRQ = Iraq. IRN = Islamic Republic of Iran. LBN = Lebanon. OMN = Oman. BHR = Bahrain. KWT = Kuwait. ARE = United Arab Emirates. QAT = Qatar. MEX = Mexico. Figure V.12 reports the time series of the growth in index of years of schooling and the growth in the employment-to-population ratio, indexed to the levels of 1970 for each country. The years of analysis are from 1970 to 2019, and the figures cover seven developing MENA countries (the Arab Republic of Egypt, Morocco, Jordan, Tunisia, Algeria, the Islamic Republic of Iran, and Iraq). The index of years of schooling is based on the average years of schooling and an assumed rate of return to education. The employment-to-population ratio is the number of persons with jobs divided by population. Figure V.13 reproduces Figure 1 from Fiuratti et al. (2024). The figure shows the percentage-point difference in labor force participation rates between men and women.

51 Data on the index of years of schooling in the Penn World Table v. 10.01 is based on the average years of schooling and an assumed rate of return to education (Mincerian estimates from around the world). The average years of schooling are drawn from two different datasets, namely Barro and Lee (2013) and Cohen and Leker (2014).  
 52 These estimates are derived from nationally representative labor market surveys in the region: Egypt Labor Market Panel Survey in 2018 and Tunisia Labor Market Panel Survey in 2014. For the United States, the data come from the Bureau of Labor Statistics.  
 53 Gatti et al. (2023).

are expected to complete one additional year of schooling compared with boys. In Saudi Arabia, the average learning outcomes for girls is 57 points higher than for boys. Similarly, the Human Capital Index 2020 Update (World Bank 2020b) reports that, in the Middle East and North Africa, girls can expect to complete more than half of an additional learning-adjusted year of schooling compared with boys.

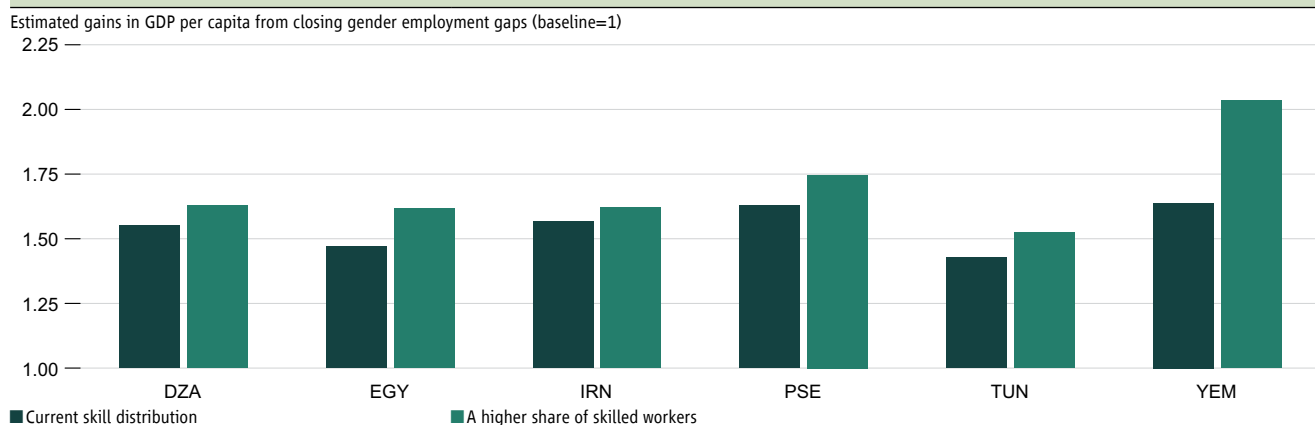
Closing gender employment gaps in MENA would result in substantial increases in income per capita. Fiuratti et al. (2024) conduct a series of analytical exercises for the region to quantify the change in GDP per capita in the long run if the employment-to-population ratio among women were to increase to match that of men. In the typical MENA country, GDP per capita would be around 50 percent higher in their baseline exercise. Intuitively, more employed workers mean more workers contributing to aggregate market production, which would increase the level of production per capita. More workers would also increase the productivity of physical capital (as each unit of physical capital would yield more output)—which would incentivize the accumulation of physical capital and further increase production per capita. Gains would be roughly half if physical capital cannot react or adjusts slowly to the change in the employment-to-population ratio. If closing the gender employment gap results in a higher share of skilled workers, however, the increase in income per capita would be much larger.

### Box V.2. The rise in female labor force participation in Saudi Arabia.

Between 2016 and 2023, the rate of female labor force participation in Saudi Arabia increased from 22 to 34 percent (national estimates, 15+). A set of comprehensive reforms and policies has created an environment conducive to improving women's economic engagement in Saudi Arabia, especially in the private sector. Key reforms in labor laws to eliminate employment discrimination, the expansion of job opportunities across various industries, and the emphasis on female labor force participation as part of Vision 2030 may have led to a substantial rise in women's participation in a relatively short time (De Moraes, Gomez Tamayo, Alrayess, and Koettl 2024).

Starting in 2016, Saudi Arabia removed barriers that prevented women from participating in all professions, driving, and accessing improved maternity leave. These changes were supported by programs that enhanced women's employment opportunities, such as job services, training, and childcare, creating a regulatory environment favorable for women entering the workforce. Economic structural reforms, accelerated by the Saudi Vision 2030 and the pandemic, may have further spurred job creation by modernizing and diversifying the economy, which has been crucial for increasing women's labor force participation.

**Figure V.14.** Capital-skill complementarities could amplify the gains from closing gender employment gaps as workers in MENA continue to acquire schooling.



Source: Reproduced from Fiuratti et al. (2024).

Note: Aggregate effects from closing gender employment gaps relative to the baseline (baseline scenario = 1). The dark green bar reflects the current skill distribution while the lighter green bar assumes that the share of women with a college education increases by 10 percentage points.

Krusell et al. (2000) find evidence suggestive of a complementarity between formal education and physical capital. As workers in MENA continue to acquire schooling, changes in the skill distribution of the economy through increases in female employment rates will result in large knock-on effects on the stock of capital per worker in the economy. Because more educated workers could, say, handle more complex technology or equipment, they would make physical capital more productive than would workers with fewer years of schooling. Those knock-on effects could amplify the gains from closing gender employment gaps. Fiuratti et al. (2024) compute the long-run gains in GDP per capita from closing gender gaps for MENA countries when there are complementarities in production between schooling and physical capital. They find that in the Arab Republic of Egypt, for example, income-per-capita would increase by 62 percent if the share of women with college education in the working-age population were to increase by 10 percentage points, as opposed to a 47 percent increase if the gap closed with the current skill distribution (Figure V.14).

## Transforming the role and the size of the state to improve the allocation of resources

Countries can exhibit low aggregate productivity when resources such as capital and labor are not allocated to their best use. For example, when less productive plants produce with larger than optimal amounts of capital and labor, while fewer resources are allocated to the most productive establishments, losses in aggregate TFP will be substantial. More generally, Restuccia and Rogerson (2008) show that policies that misallocate resources by creating differences in the prices different firms pay for the same inputs (when some firms pay less for the same resources than others do) can lead to decreases in TFP in the range of 30 to 50 percent. In the same vein, Hsieh and Klenow (2009) document large dispersion (within narrowly defined manufacturing sectors) in the implicit taxes faced by plants in China and India compared with the United States. When capital and labor are hypothetically reallocated across plants to equalize the dispersion of implicit taxes to the extent observed in the frontier economy, they estimate TFP gains of 30 to 50 percent in China and 40 to 60 percent in India.

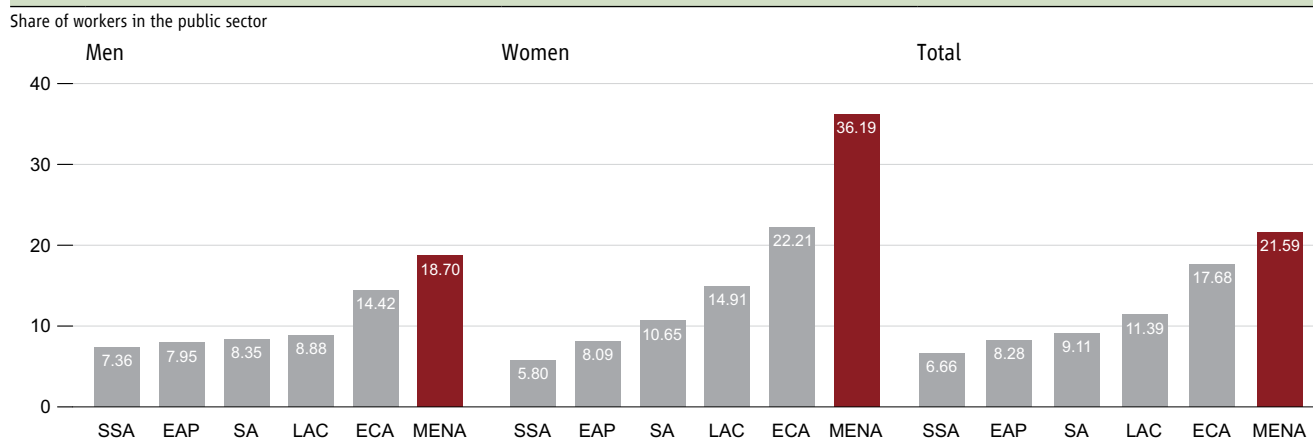
Special provisions in the tax code and labor regulations that affect or benefit some firms but not others are some potential sources of resource misallocation.<sup>54</sup> In the MENA region, political connections and state-owned enterprises (SOEs) help contribute to an uneven playing field that favors only some firms. In Tunisia, politically connected firms were more likely to evade import tariffs and they also accounted for a disproportionate share of resources, especially in sectors subject to authorization of and restrictions on foreign direct investment. Rijkers, Baghdadi, Raballand (2017) find that firms owned by former president Ben Ali and his family (which were confiscated after the 2011 Jasmin Revolution forced Ben Ali from power) were more likely to evade tariffs by under-reporting their imports. Rijkers, Freund, and Nucifora (2017) find that these firms were also more likely to operate in protected sectors (which are subject to more entry restrictions), and accounted for 11 percent of all jobs, 43 percent of output, and 55 percent of net profits in these sectors but only 0.9 percent of all firms. In non-protected industries, Ben Ali firms accounted for only 1 percent of employment, 1.2 percent of output, and 3.3 percent of net profits.

Islam, Moosa, and Saliola (2022) document an unusually widespread presence in the region of SOEs in many sectors of the economy, including those usually served by the private sector in other regions (such as manufacturing, accommodation, and even construction). Of the 29 sectors that they study, they find that the government controls at least one SOE in every sector in the Arab Republic of Egypt, at least one in 23 sectors in Saudi Arabia, in 22 sectors in the United Arab Emirates, and in 18 sectors in Morocco. In comparison, in high-income countries the average is one SOE in 12 sectors, and among upper-middle income countries, 15. The authors also find that the governance and ownership structure

<sup>54</sup> See Restuccia and Rogerson (2017) for a helpful discussion on the causes and costs of misallocation.

of SOEs create incentives to favor them over private competitors. For example, in the Arab Republic of Egypt, the National Telecommunications Regulatory Authority (the telecommunications regulator) is under the authority of the Ministry of Communications and Information Technologies, which owns 80 percent of Telecom Egypt, the largest telecom operator. In the Arab Republic of Egypt and Kuwait, the government controls the national air carriers, which benefit from preferential treatment in terms of time slots in the Arab Republic of Egypt and jet fuel prices in Kuwait. SOEs in the region are sometimes exempt from some laws and regulations that apply to private firms. In Tunisia, they are exempted from commercial, corporate, and competition laws; in Kuwait, from bankruptcy and competition laws; in the Arab Republic of Egypt, from competition law; in Morocco, from electricity regulation (World Bank 2023b).

**Figure V.15.** The public sector in MENA employs a disproportionate share of both men and women.



Sources: World Bank staff calculations based on data from the International Labour Organization's ILOSTAT.

Note: The bar chart reports the percentage of employed men (left panel) and women (middle panel) that are employed in the public sector. The figure shows the weighted average of employment in the public sector for each region. The data are for the latest year available for each country. MENA countries included in the average are the following: the Arab Republic of Egypt, the Islamic Republic of Iran, Iraq, Jordan, Lebanon, Tunisia, the United Arab Emirates, the West Bank and Gaza.

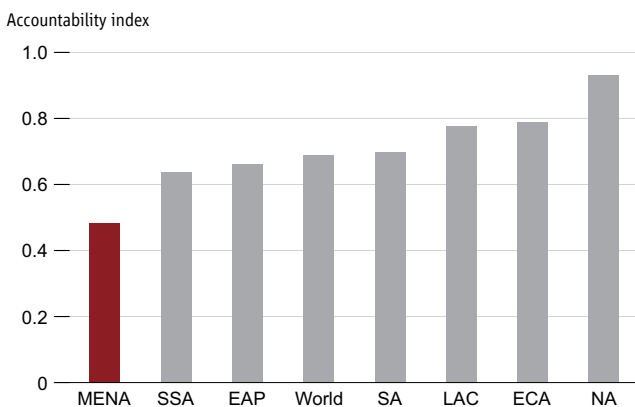
Losses in TFP can also arise when talent is misallocated across sectors or occupations. Hsieh, Hurst, Jones, and Klenow (2019) find that 40 percent of the observed growth in the United States between 1960 and 2010 was mainly the result of the reduction of barriers—such as discrimination—and obstacles to human capital accumulation for women and black men in high-skill occupations. In MENA, one potential source of talent misallocation is the large presence of the public sector in the labor market. The share of employment in the public sector in the region (from a cross-country dataset) is markedly high when compared to the rest of the world, especially for women.<sup>55</sup> On average, 19 percent of employed men and 37 percent of employed women work in the public sector in MENA (Figure V.15). The cross-country dataset does not include Algeria, where the share of employed women in the public sector is 64 percent, nor Iraq, where the share is 71 percent.<sup>56</sup> The average share of employed women in the public sector in MENA is almost twice the average for Europe and Central Asia, the region with the second largest share of employed women in the public sector. Such large share of workers in the public sector could reflect a significant talent misallocation away from the private sector, resulting in large TFP losses. Such losses might be especially high if the most talented, highest educated women work in the public sector. Gatti et al. (2013) document that the more-educated workers in the region tend to join the public sector (especially in the Arab Republic of Egypt, Jordan, Morocco, and the Syrian Arab Republic). For the Arab Republic of Egypt, in particular, recent data from the Labor Force Survey shows that two out of three women with a college education work in the public sector. Importantly, although the share of women working in the public sector is high, the overall number is still comparatively low, because only a small share of women participates in the labor force in the region.

<sup>55</sup> See the note in Figure V.15 for the source of the data.

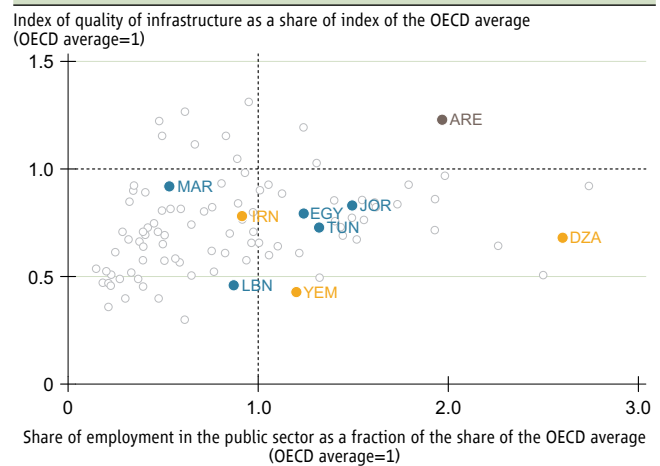
<sup>56</sup> The number for Algeria comes from the country's National Statistics Office (<https://www.ons.dz/spip.php?rubrique56>). The number for Iraq comes from a 2021 report on the labor force survey prepared by International Labour Organization (<https://www.ilo.org/publications/iraq-labour-force-survey-2021>).

Parro and Torres (2024) argue that there is a tradeoff in the allocation of talent between the public and the private sectors. On the one hand, the public sector produces goods that help boost private sector output, such as infrastructure (like roads and airports). More workers in the public sector will translate into more public goods, which in turn will increase the productivity of the private sector. On the other hand, more talent in the public sector shrinks the private sector and importantly, the pool of potential entrepreneurs, which might be detrimental to aggregate output. This suggests that there is an optimal share of employment in the public sector that maximizes aggregate output. Importantly, this optimal size depends on the efficiency of public goods in boosting the productivity of the private sector. When this efficiency is high, the public sector should employ a large share of workers to maximize output; when this efficiency is low, the optimal size of the public sector will be low as well because too much talent otherwise would be diverted from the private sector relative to the benefit from the produced public goods.

**Figure V.16.** MENA underperforms every other region in accountability.



**Figure V.17.** The size of the public sector in some developing economies in MENA might be too large relative to the level of efficiency of public goods.



Sources: Belhaj et al. (2022). International Labour Organization, ILOStat database. World Bank staff calculations based on data from the World Economic Forum *Global Competitiveness Index*, historical dataset (2016–2017).

Note: MENA = Middle East North Africa. SSA = sub-Saharan Africa. EAP = East Asia and Pacific. SA = South Asia. LAC = Latin America and the Caribbean. ECA = Europe and central Asia. NA = North America. YEM = Republic of Yemen. LBN = Lebanon. DZA = Algeria. TUN = Tunisia. IRN = Islamic Republic of Iran. EGY = Arab Republic of Egypt. JOR = Jordan. MAR = Morocco. ARE = United Arab Emirates. Figure V.16: The accountability scores cover 178 countries for the year 2020 and are normalized to range between 0 and 1. Figure V.17: The quality of overall infrastructure is measured using the WEF Global Competitiveness Report’s survey of Partner Organizations (universities, research organizations, business associations, competitiveness councils) with the network to reach out to leading business executives in each country. The list of Partner Organizations for each country can be accessed here: [https://www3.weforum.org/docs/GCR2016-2017/05FullReport/TheGlobalCompetitivenessReport2016-2017\\_FINAL.pdf](https://www3.weforum.org/docs/GCR2016-2017/05FullReport/TheGlobalCompetitivenessReport2016-2017_FINAL.pdf). Respondents are asked, ‘How do you assess the general state of infrastructure (e.g., transport, communications, and energy) in your country?’ and rate it on a scale from 1 to 7, where 1 indicates “extremely underdeveloped—among the worst in the world,” and 7 indicates “extensive and efficient—among the best in the world.” The data on the quality of overall infrastructure are collected for each country for the year 2017 or the most recent available year. The values are normalized to the OECD averages for the quality of the overall infrastructure index and the share of employment in the public sector. Data for OECD countries are available for the following countries: Australia, Austria, Canada, Chile, Colombia, Costa Rica, France, Israel, Japan, South Korea, Mexico, Slovakia, Switzerland, Türkiye, United States of America.

Figures V.16 and V.17 suggest that in MENA, the share of workers in the public sector is too large relative to the quality of the public goods delivered. Figure V.16 shows that MENA underperforms every other region in accountability (Belhaj et al. 2022), but accountability is critical to improve the quality with which critical public services are provided (Deininger and Mpuga 2005). Figure V.17 shows the share of employment in the public sector and the quality of infrastructure across countries, both variables normalized to a value of 1 for the OECD average. Algeria, the Arab Republic of Egypt, Jordan, Tunisia, and the Republic of Yemen have a higher share of public sector employment than the OECD average yet exhibit a lower quality of overall infrastructure.<sup>57</sup> Algeria, especially, has around two and half times the share of public sector employment of the OECD average, but scores 32 percent lower in infrastructure quality. Meanwhile, Lebanon and the Islamic Republic of Iran have a comparable share of public sector employment but display lower overall infrastructure quality relative to the OECD average. The United Arab Emirates, on the other hand, has a score 23 percent higher in the quality of public infrastructure than OECD average, but its public sector employment share is almost twice

<sup>57</sup> For more information on data sources and methodology, see the note to Figure V.17.

the OECD average. In the MENA region, a higher share of public sector employment does not necessarily correspond to a better-quality infrastructure than in the OECD average.

Parro and Torres (2024) offer evidence of substantial productivity gains across the region from reallocating talent away from the public sector, even if public goods in the region were as effective in boosting private sector output as in the average developed economy. If labor were to be optimally reallocated away from the public and into the private sector, aggregate productivity would increase by 5 percent in the Islamic Republic of Iran; 8 percent in Tunisia and the Arab Republic of Egypt; 9 percent in Jordan; 43 percent in Algeria; and 46 percent in Iraq.<sup>58</sup> They also found that the level of public sector employment in the Arab Republic of Egypt, for example, is only optimal for a level of efficiency of public goods three times the average for developed economies.

## Tapping into the frontier of technology through more international trade

Low aggregate productivity could also reflect production techniques (ideas, technology) at the firm-level that are far from those in the frontier economy. Cirera et al. (2024), for example, find that differences in technology sophistication across establishments (whose average is a component of TFP) account for 31 percent of differences in residual productivity.

The *World Development Report 2024* (World Bank 2024i) emphasizes the importance of infusion of technology and knowledge as a pathway for countries to avoid the middle-income trap, which occurs when countries experience systematic growth slowdowns and are unable to develop the new economic structures needed to reach and sustain high-income levels. Infusion is the process by which countries imitate and spread modern technologies and business models from more advanced economies and apply this knowledge at scale in their domestic economy—which enables domestic industries to become global suppliers of goods and services. Once a country has escaped the middle-income trap, it can add innovation to the mix—when countries focus on building home country capabilities to add value to global technologies so that domestic firms can become global knowledge creators.

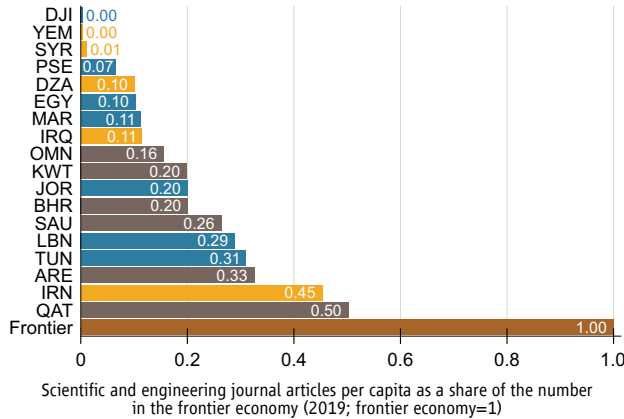
Countries begin their growth journey by accelerating investment in private capital, education, and infrastructure. However, sustained growth requires a transition to the next stage, which involves infusing and diffusing global ideas. When returns diminish, they should transition to a strategy that combines investment, infusion, and innovation. Korea is an example of a country that has successfully transitioned from middle-income to high-income status. In the 1960s, Korea was one of the poorest countries in the world; today it is one of the most affluent, with income per capita close to US\$35,000. In the 1960s and 1970s, Korea encouraged its conglomerates, like Samsung, to send engineers to leading companies, such as NEC in Japan, to learn best practices. The Korean government also incentivized firms to acquire global ideas by offering tax benefits for licensing foreign technology. This approach helped Korea master technologies in televisions and radios, eventually surpassing Japanese capabilities. When Japan raised licensing costs, Korea shifted from infusing Japanese technology to pursuing its own innovation.

For MENA, the knowledge produced in the region lags both in its impact and its novelty—which suggests that lags in technology sophistication are a potential source of the low levels of residual TFP. Figure V.18 shows the number of scientific and engineering journal articles per capita for each MENA country for the year 2019, normalized to the frontier value. Importantly in the case of GCC, population include non-nationals. Qatar reaches 50 percent of the frontier level, followed by the Islamic Republic of Iran at 45 percent, the United Arab Emirates at 33 percent, and Tunisia at 31 percent. The number of published articles per capita in the Arab Republic of Egypt is only 10 percent of the frontier

<sup>58</sup> In their exercise, they calibrate their model to data from the Arab Republic of Egypt. Using the calibrated parameters, they then run counterfactuals for the other countries in the MENA region to compute the gains in productivity from reallocating talent for an optimal size of the public sector.

amount. Countries affected by fragile and conflict-affected situations in MENA—Iraq, the Syrian Arab Republic, the West Bank and Gaza, and the Republic of Yemen—do not exceed 11 percent of the frontier scientific production. Figure V.19 quantifies the number of research citations (specifically, the H-index which reports the number of articles in a country that have received at least that number of citations) across countries in relation to population sizes—a measure of scientific impact. Eight MENA countries—Algeria, Djibouti, the Arab Republic of Egypt, Iraq, Morocco, the West Bank and Gaza, the Syrian Arab Republic, and the Republic of Yemen—have lower H-index values relative to their population size than average—which is already significantly far from the impact of the frontier economy. Larger economies, such as Saudi Arabia and the Islamic Republic of Iran, also have a scientific presence well below peers of comparable size.

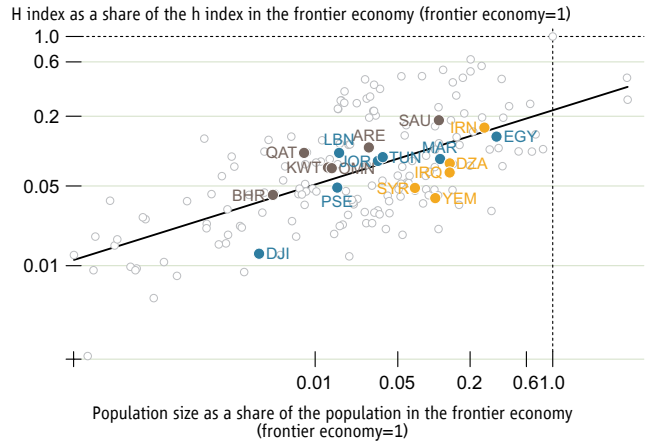
**Figure V.18.** Countries in MENA produce relatively few scientific articles per capita.



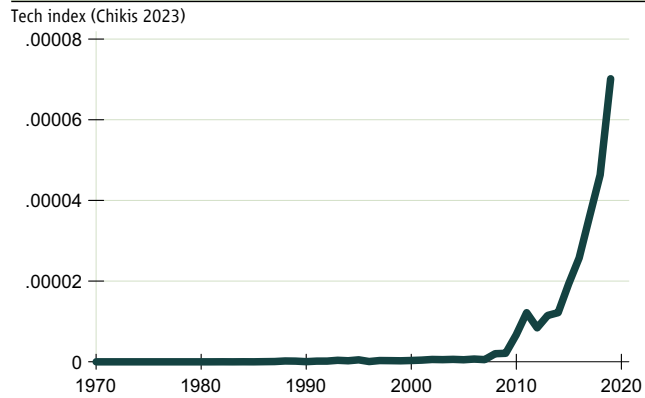
Over the past 15 years, only Saudi Arabia has seen a significant increase in the novelty and impact of its knowledge, but it remains well behind the frontier. Figure V.20 shows the evolution of the technology index, which embeds both the importance and scale of a country's patents (Chikis 2023 and WDR 2024), with the United States set as the frontier (U.S. = 1). The technology index is constructed using the number of granted patents per capita and network centrality. Network centrality is calculated to measure whether a country is in the frontier of technology and is defined by the citations in a country's patents of other countries' patents in a given period.

Tapping into the frontier of global technology and ideas can help boost economic growth in the region (Klenow and Rodriguez-Clare 2005, Stokey 2012, WDR 2024). International trade, through the knowledge spillovers it generates, is one important way to achieve economic growth (Melitz and Redding 2021, WDR 2024). The evidence suggests, however, that the region lacks competitiveness in non-oil exports and economies need globally competitive firms and specialized talent to be able to undertake technology infusion at scale (WDR

**Figure V.19.** The knowledge generated in MENA has less impact in terms of citations compared to countries of similar size.



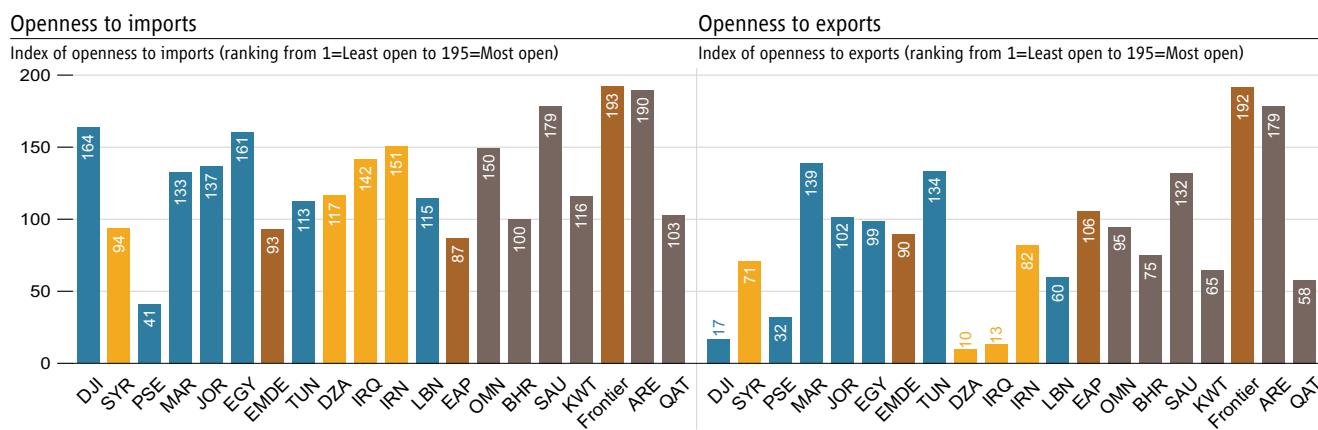
**Figure V.20.** The novelty of the knowledge produced in Saudi Arabia took off in the last 15 years, but it still very far away from the frontier (frontier economy = 1).



Sources: Scimago, Chikis (2023), the World Development Report, 2024, and World Bank, staff calculations based on data from the World Bank databank.  
 Note: DZA= Algeria. BHR = Bahrain. DJI = Djibouti. EGY = Arab Republic of Egypt. IRQ = Iraq. IRN = Islamic Republic of Iran. JOR = Jordan. KWT= Kuwait. LBN = Lebanon. MAR = Morocco. OMN =Oman. QAT = Qatar. SAU = Saudi Arabia. SYR = Syrian Arab Republic. TUN = Tunisia. YEM = Republic of Yemen. PSE = The West Bank and Gaza. ARE = United Arab Emirates. In Figure V.18, scientific and technical journal articles refer to the number of scientific and engineering articles published in the following fields: physics, biology, chemistry, mathematics, clinical medicine, biomedical research, engineering and technology, and earth and space sciences. Scientific and technical article counts are from journals classified by the Institute for Scientific Information's Science Citation Index (SCI) and Social Sciences Citation Index (SSCI). Counts are based on fractional assignments; articles with authors from different countries are allocated proportionately to each country. In Figure V.19, the data for the H-index were taken from the ScimagoJR.com portal for the year 2023. The H-index and population size are normalized to the U.S. value. The black line represents the fitted line, showing the linear relationship between the H index and population size across all countries in the dataset. Both axes are in log scale. Figure V.20, for a detailed methodology on computing the Tech Index, please see Chikis (2023) and WDR (2024).

2024). Figure V.21 shows that although countries in MENA do not appear to have implicit barriers to non-oil imports, most economies are below the median in openness to non-oil exports. Indeed, some MENA developing economies such as Algeria, Iraq, and Djibouti are among the 20 economies least open to exports globally—despite the proximity to the European Union market, which is a natural comparative advantage for MENA countries looking for destinations they could tap to boost international trade and benefit from spillovers.

**Figure V.21.** Most MENA economies are below the median in an index of openness to non-oil exports, which points to potential outward barriers.



Source: World Bank staff calculations based on data from BACI (from the *Centre d'Etudes Prospectives et d'Informations Internationales*).

Note: DZA= Algeria. BHR = Bahrain. DJI = Djibouti. EGY = Arab Republic of Egypt. IRQ = Iraq. IRN = Islamic Republic of Iran. JOR = Jordan. KWT= Kuwait. LBN = Lebanon. MAR = Morocco. OMN =Oman. QAT = Qatar. SAU = Saudi Arabia. SYR = Syrian Arab Republic. TUN = Tunisia. YEM = Republic of Yemen. PSE = The West Bank and Gaza. ARE = United Arab Emirates. EAP = East Asia and the Pacific. EMDE = Emerging Market and Developing Economies. The bar chart ranks the countries based on their level of openness to imports and openness to exports. Countries are sorted, left to right, from lowest to highest output-side real GDP at current PPPs divided by population (2017). The indices are estimated from a classical gravity model that regresses the bilateral trade value between a country-of-origin and a country of destination (including zero if there is no trade), on a set of explanatory variables. The explanatory variables are the size of both economies, the distance between them, whether they share a border, and/or a language, and whether they participate in a trade agreement. The regression has also origin, destination, and year fixed effects. The countries' fixed effects (one as importer, one as exporter) indicate the country-specific propensity to trade with the rest of the world, after controlling for other determinants of the volume of trade. The figure shows the rank of these fixed effects in the sample of 195 countries. The analysis excludes imports and exports in the oil sector. The bars corresponding to EMDE are the average indices of all Emerging market and developing economies. The bars corresponding to EAP (East Asia and Pacific) are the average of indices of countries in the region.

Figure V.21 ranks MENA countries, other EMDEs, the EAP region and the frontier economy in terms of openness to non-oil imports and non-oil exports. This index of openness indicates the magnitude of the unobservable barriers (known in the trade literature as the resistance term) to imports and exports from estimates of a gravity model, widely used in the trade literature, that controls for standard factors that might determine the volume of trade (such as the size of the economy, bilateral distance to the trading partner, and whether the partners share a common border or language or have a free trade agreement). These unobservable barriers that influence trade include the quality of institutions, trade policies, historical ties with partner countries, and geographical advantages other than proximity. The analysis excludes the oil sector. The index is then a measure of how much a country is open to trade as an importer or as an exporter.

## Data transparency for more growth

In MENA, data transparency is lacking. The production and release of microdata sets is limited, and the region scores poorly in the statistical performance index compared to income peers (Belhaj et al. 2022). Many data sets are outdated and there are many gaps in core statistics, even among high-income economies. Most countries in the region publish very few microdata sets. Belhaj et al. (2022) argue that lack of resources and inadequate capacity to produce statistics do not explain the data gaps observed.

The analysis in this report was undermined by the same data challenges. In terms of macro data, there is potential mismeasurement of investment in national accounts among some MENA oil importers. With regards to sources of micro-

data, labor force participation seems to be underreported among both MENA developing oil importers and oil exporters. Furthermore, the lack of high-frequency poverty estimates spanning long periods of time limited the study of whether growth is inclusive in the MENA region.

There is much to gain if the region invests in data transparency as another lever for growth. Data transparency is crucial for development (Hodelin 2022; Islam and Lederman 2024). Islam and Lederman (2024) list different channels through which data transparency can boost standards of living. Countries with high-quality and broadly accessible information can make better decisions. Data transparency reduces growth forecast errors (Gatti et al., 2024), increases scientific research (Nagaraj et al., 2020), lowers sovereign spreads (Gonzalez-Garcia, 2024), improves the effectiveness of monetary policy, and bolsters public confidence (Shambaugh & Shen, 2018).

## References

- Abadie, Alberto, Alexis Diamond, and Jens Hainmueller. (2010). "Synthetic control methods for comparative case studies: Estimating the effect of California's tobacco control program" *Journal of the American statistical Association*, 105(490), pp. 493-505.
- Abadie, Alberto, Alexis Diamond, and Jens Hainmueller. (2015). "Comparative politics and the synthetic control method" *American Journal of Political Science*, 59(2), pp. 495-510.
- Abadie, Alberto, and Javier Gardeazabal. (2003). "The economic costs of conflict: A case study of the Basque Country" *American economic review*, 93(1), pp. 113-132.
- Ahir, Hites, Nicholas Bloom, and Davide Furceri (2022). "The World Uncertainty Index" NBER Working Paper, No. 29763. DOI: 10.3386/w29763.
- Akresh, Richard, Philip Verwimp, and Tom Bundervoet. (2011). "Civil war, crop failure, and child stunting in Rwanda" *Economic Development and cultural change*, 59(4), pp. 777-810.
- Arezki, Rabah and Lemma Senbet (2020). "Transforming Finance in the Middle East and North Africa" World Bank Policy Research Working Paper, No. 9301. DOI: 10.1596/1813-9450-9301.
- Assaad, Ragui, and Caroline Gould Krafft (2024). "Connecting People to Projects: A New Approach to Measuring Women's Employment in the Middle East and North Africa" Policy Research Working Paper Series, No. 10659. Washington, DC: World Bank Group.
- Atamanov, Aziz, Sharad Alan Tandon, Gladys C. Lopez-Acevedo, and Vergara Bahena Mexico Alberto (2020). "Measuring Monetary Poverty in the Middle East and North Africa (MENA) Region: Data Gaps and Different Options to Address Them" Policy Research Working Paper Series, No. 9259. Washington, DC: World Bank Group.
- Avitabile, Ciro, Ritika D'Souza, Roberta Gatti, and Emily Weedon (2019). "Insights from Disaggregating the Human Capital INDEX" Washington, DC: World Bank Group.
- Baqae, David and Emmanuel Farhi (2019). "A Short Note on Aggregating Productivity" National Bureau of Economic Research. <https://doi.org/10.3386/w25688>.
- Barro, Robert J., and Jong Wha Lee (2013). "A New Data Set of Educational Attainment in the World, 1950–2010" *Journal of Development Economics*, 104, pp. 184-198. <https://doi.org/10.1016/j.jdeveco.2012.10.001>.
- Belhaj, Ferid, Roberta Gatti, Daniel Lederman, Ernest John Sergenti, Hoda Assem, Rana Lotfi, and Mennatallah Emam Mousa (2022). "A new state of mind: Greater transparency and accountability in the Middle East and North Africa" MENA Economic Update. Washington, DC: World Bank Group.
- Bloom, Nicholas (2014). "Fluctuations in Uncertainty" *Journal of Economic Perspectives*, 28(2), pp. 153-176.
- Brancati, Emanuele, Michele Di Maio, Roberta Gatti, and Asif M. Islam (2024). "Conflict and firms' performance: A global view" Unpublished manuscript.
- Brown, Ryan, and Andrea Velásquez (2017). "The Effect of Violent Crime on the Human Capital Accumulation of Young Adults" *Journal of Development Economics*, 127, pp. 1-12. <https://doi.org/10.1016/j.jdeveco.2017.02.004>.
- Brück, Tilman, Michele Di Maio, and Sami H. Miaari (2019). "Learning The Hard Way: The Effect of Violent Conflict on Student Academic Achievement" *Journal of the European Economic Association*, 17(5), pp. 1502-1537.
- Caldara, Dario, and Matteo Iacoviello (2022). "Measuring Geopolitical Risk" *American Economic Review*, 112(4), pp. 1194-1225. DOI: 10.1257/aer.20191823.
- Caselli, Francesco (2005). "Accounting for Cross-Country Income Differences" In Philippe Aghion and Steven Durlauf (eds.), *Handbook of Economic Growth*, 1(1), pp. 679-741. Elsevier.
- Chikis, Craig A. (2023). "The Developmental Trinity: Institutions, Infrastructure, and Technology" University of Chicago.
- Cirera, Xavier, Diego A. Comin, and Marcio Cruz (2024). "Anatomy of Technology and Tasks in the Establishment" National Bureau of Economic Research Working Paper Series, No. 32281. DOI: 10.3386/w32281. <http://www.nber.org/papers/w32281>.

- Cohen, Daniel, and Laura Leker (2014). "Health and Education: Another Look with the Proper Data" CEPR Discussion Papers, No. 9940. C.E.P.R. Discussion Papers.
- Collier, Paul, V. L. Elliot, Havard Hegre, Anke Hoefler, Marta Reynal-Querol and Nicholas Sambanis. (2003). "Breaking the Conflict Trap: Civil War and Development Policy" Washington, DC: World Bank Group & Oxford University Press.
- Corral, Paul, and Roberta Gatti (2020). "Accumulation interrupted: COVID-19 and human capital among the young" In Simeon Djankov and Ugo Panizza (eds.), *COVID-19 in Developing Economies*, 1(21), pp. 286-302. London: Centre for Economic Policy Research.
- Davies, Shawn, Garoun Engström, Therése Pettersson, and Magnus Öberg (2024). "Organized violence 1989–2023, and the prevalence of organized crime groups" *Journal of Peace Research*, 61(4).
- De Cosmo, Sergio, Mahi Elattar, Ellen Hamilton, Katrin Heger, Francesca Recanatini and Joseph Saba. (2022). "Building for Peace: Reconstruction for Security, Sustainable Peace, and Equity in the Middle East and North Africa." In *A New State of Mind: Greater Transparency and Accountability in the Middle East and North Africa*, edited by Ferid Belhaj, Roberta Gatti, Daniel Lederman, Ernest John Sergenti, Hoda Assem, Rana Lotfi, and Mennatallah Emam Mousa, pp. 88-98. Washington, DC: World Bank Group.
- De Moraes, Gael, Sofia Gomez Tamayo, Dana Larayess, and Johannes Koettl "Female Labor Force Participation in the Middle East and North Africa: regional trends and lessons from the experience of Saudi Arabia" Unpublished manuscript.
- de Roux, Nicolás, and Luis Martinez (2021). "Uncertainty, Peace, and Investment: Evidence from Credit Microdata in Colombia" Available at SSRN: <https://ssrn.com/abstract=3725231> or <http://dx.doi.org/10.2139/ssrn.3725231>.
- Deiningner, Klaus, and Paul Mpuga (2005). "Does Greater Accountability Improve the Quality of Public Service Delivery? Evidence from Uganda" *World Development*, 33(1), pp. 171-191.
- Ekhatior-Mobayode, Uche Eseosa, and Johannes G. Hoogeveen. (2022). "Microdata collection and openness in the Middle East and North Africa" *Data & Policy*, 4: e31. DOI:10.1017/dap.2022.24.
- Fan, Rachel Yuting, Daniel Lederman, Ha Nguyen, and Claudio J. Rojas (2024). "Calamities, debt, and growth in developing countries" *IMF Economic Review*, 72(1), pp. 487-507.
- FAO, IFAD, UNICEF, WFP and WHO. (2017). "The State of Food Security and Nutrition in the World 2017. Building resilience for peace and food security" Rome, Italy: Food and Agriculture Organization.
- Feenstra, Robert C., Robert Inklaar, and Marcel P. Timmer (2015). "The Next Generation of the Penn World Table" *American Economic Review*, 105(10), 3150-3182. DOI: 10.1257/aer.20130954.
- Fiuratti, Federico Ivan, Steven Pennings, and Jesica Torres (2024). "How Large Are the Economic Dividends from Closing Gender Employment Gaps in the Middle East and North Africa?" Policy Research Working Paper, 10706. Washington, DC: World Bank Group.
- Gatti, Roberta, Daniel Lederman, Asif M. Islam, Ha Nguyen, Rana Lotfi, and Mennatallah Emam Mousa (2024). "Data Transparency and GDP Growth Forecast Errors" *Journal of International Money and Finance*, 140, 102991.
- Gatti, Roberta, Daniel Lederman, Nelly Elmallakh, Jesica Torres, Joana Silva, Rana Lotfi, and Ilias Suvanov (2023a). "Balancing Act: Jobs and Wages in the Middle East and North Africa when Crisis Hit" MENA Economic Update. Washington, DC: World Bank Group.
- Gatti, Roberta, Daniel Lederman, Asif M. Islam, Bo Pieter Johannes Andree, Rana Lotfi, Mennatallah Emam Mousa, Federico Bennett, Hoda Assem (2023b). "Altered Destinies: The Long-Term Effects of Rising Prices and Food Insecurity in the Middle East and North Africa" MENA Economic Update. Washington, DC: World Bank Group.
- Gatti, Roberta, Federico Roberto Bennett, Hoda Assem, Rana Lotfi, Gianluca Mele, Ilias Suvanov, and Asif M. Islam (2024). "Conflict and Debt in the Middle East and North Africa" MENA Economic Update. Washington, DC: World Bank Group.

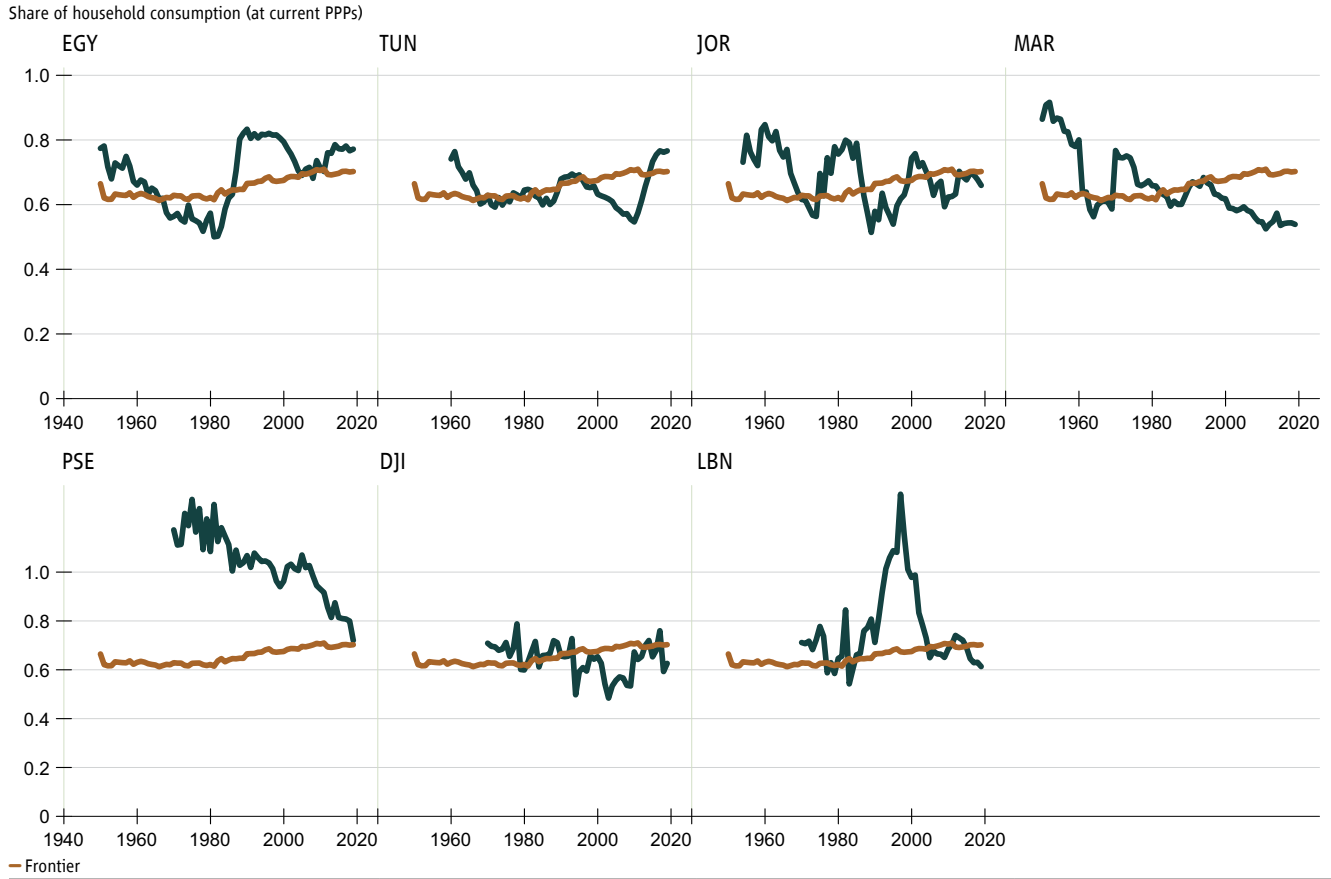
- Gatti, Roberta, Matteo Morgandi, Rebekka Grun, Stefanie Brodmann, Diego Angel-Urdinola, Juan Manuel Moreno, Daniela Marotta, Marc Schifffbauer, and Elizabeth Mata Lorenzo (2013). "Jobs for Shared Prosperity: Time for Action in the Middle East and North Africa" World Bank Publications - Books, The World Bank Group, Number 13284, December.
- Gaulier, Guillaume, and Soledad Zignago (2010) "BACI: International Trade Database at the Product-Level. The 1994-2007 Version" CEPII Working Paper, No. 2010-23.
- George, Justin, Adesoji Adelaja, and Dave Weatherspoon. (2020). "Armed conflicts and food insecurity: evidence from Boko Haram's attacks" *American Journal of Agricultural Economics*, 102(1), pp. 114-131.
- Gonzalez-Garcia, Jesus (2024). "Data Transparency and Sovereign Financing Conditions." *Empirical Economics*, 66, pp. 1735–1755. <https://doi.org/10.1007/s00181-023-02498-4>.
- Hodelin, Reynaldo Senra (2022). "Statistical Disclosure and Economic Growth: What is the Nexus?" *World Development*, 160, 106036.
- Holleman, Cindy, Julius Jackson, Marco V. Sánchez, and Rob Vos. (2017). "Sowing the seeds of peace for food security. Disentangling the nexus between conflict, food security and peace" *FAO Agricultural Development Economics Technical Study 2*. Rome, Italy: Food and Agriculture Organization.
- Hoogeveen, Johannes G., and Gladys Lopez-Acevedo. (Eds.) (2021). "Distributional Impacts of COVID-19 in the Middle East and North Africa Region" *MENA Development Report*. Washington, DC: World Bank Group.
- Hsieh, Chang-Tai, and Peter J. Klenow (2009). "Misallocation and Manufacturing TFP in China and India" *The Quarterly Journal of Economics*, 124(4), pp. 1403-1448. <https://doi.org/10.1162/qjec.2009.124.4.1403>.
- Hsieh, Chang-Tai, and Peter J. Klenow (2010). "Development Accounting" *American Economic Journal: Macroeconomics*, 2(1), pp. 207-223. DOI: 10.1257/mac.2.1.207.
- Hsieh, Chang-Tai, Erik Hurst, Charles I. Jones, and Peter J. Klenow (2019). "The Allocation of Talent and U.S. Economic Growth" *Econometrica*, 87(5), pp. 1439-1474. <https://doi.org/10.3982/ECTA11427>.
- Ilut, Cosmin, Matthias Kehrig, and Martin Schneider (2018). "Slow to hire, quick to fire: Employment dynamics with asymmetric responses to news" *Journal of Political Economy*, 126, (5), pp. 2011-2071.
- IMF (2019). "Regional Economic Outlook Sub-Saharan Africa: Recovery Amid Elevated Uncertainty." Washington, DC: International Monetary Fund.
- IMF (2024). "Regional Economic Outlook Middle East and Central Asia: An Uneven Recovery Amid High Uncertainty" Washington, DC: International Monetary Fund.
- Inklaar, Robert, and Pieter Woltjer (2021). "Is Egypt Really More Productive than the United States? The Data behind the Penn World Table" *International Productivity Monitor, Centre for the Study of Living Standards*, 41, pp. 118-137. Fall.
- Islam, Asif Mohammed, Dalal Hasan Sharif Sayed Moosa, and Federica Saliola (2022). "Jobs Undone: Reshaping the Role of Governments toward Markets and Workers in the Middle East and North Africa" *Jobs Group Papers, Notes, and Guides 33863304*. Washington, DC: World Bank Group.
- Islam, A. M., and Daniel Lederman. (2024). "Data transparency and growth in developing economies during and after the global financial crisis" *Kyklos*, pp. 1–37. <https://doi.org/10.1111/kykl.12404>.
- Jones, Charles I. (2016). "The Facts of Economic Growth" In John B. Taylor and Harald Uhlig (eds.), *Handbook of Macroeconomics*, 2, pp. 3-69. Elsevier.
- Keo, Caitlyn, Caroline Krafft, and Luca Fedi (2022). "Rural Women in Egypt: Opportunities and Vulnerabilities" In Caroline Krafft and Ragui Assaad (eds.), *The Egyptian Labor Market: A Focus on Gender and Economic Vulnerability* (Oxford, online edition). Oxford Academic. <https://doi.org/10.1093/oso/9780192847911.003.0009>.
- Klenow, Pete, and Andres Rodriguez-Clare (2005). "Externalities and Growth" In Philippe Aghion and Steven Durlauf (eds.), *Handbook of Economic Growth*, 1, Part A, pp. 817-861. Elsevier.
- Korovkin, Vasily, and Alexey Makarin (2023). "Conflict and Intergroup Trade: Evidence from the 2014 Russia-Ukraine Crisis" *American Economic Review*, 113(1), pp. 34-70. DOI: 10.1257/aer.20191701.

- Krusell, Per, Lee E. Ohanian, José-Víctor Ríos-Rull, and Giovanni L. Violante (2000). "Capital-Skill Complementarity and Inequality: A Macroeconomic Analysis" *Econometrica*, 68(5), pp. 1029-1053.
- Mahler, Daniel Gerszon, and Christoph Lakner. (2022). "The Impact of COVID-19 on Global Inequality and Poverty" Policy Research Working Papers, No. 10198. Washington, DC: World Bank Group.
- Mankiw, N. Gregory, David Romer, and David N. Weil (1992). "A contribution to the empirics of economic growth" *The quarterly Journal of Economics*, 107(2), pp. 407-437.
- Matsunaga, Hideki (2019). "The reconstruction of Iraq after 2003: Learning from its successes and failures" World Bank Publications. Washington, DC: World Bank Group.
- Melitz, Marc J., and Stephen J. Redding (2021). "Trade and Innovation" NBER Working Papers, No. 28945. National Bureau of Economic Research, Inc.
- Mueller, H., and J. Tobias (2016). "The Cost of Violence: Estimating the Economic Impact of Conflict" IGC Growth Brief Series 007. London: International Growth Centre.
- Muriuki, James, Darren Hudson, and Syed Fuad. (2023). "The impact of conflict on food security: evidence from household data in Ethiopia and Malawi." *Agriculture & Food Security*, 12(1), pp. 41.
- Nagaraj, Abishek, Esther Shears, and Mathijs de Vaan (2020). "Improving Data Access Democratizes and Diversifies science." *Proceedings of the National Academy of Sciences Sep 2020*, 117(38), pp. 23490-23498. DOI: 10.1073/pnas.2001682117.
- Parro, Francisco and Jesica Torres (2024). "Optimal Public Sector Premium, Talent Misallocation, and Aggregate Productivity: Evidence from the Middle East and North Africa" Unpublished manuscript.
- Pennings, Steven Michael (2022). "A Gender Employment Gap Index (GEGI): A Simple Measure of the Economic Gains from Closing Gender Employment Gaps, with an Application to the Pacific Islands" Washington, DC: World Bank Group. <http://hdl.handle.net/10986/37062>. License: CC BY 3.0 IGO.
- Ravallion, Martin. (2004). "Pro-poor growth: A primer" World Bank Policy Research Working Paper Series, No. 3242. Washington, DC: World Bank Group.
- Restuccia, Diego, and Richard Rogerson (2008). "Policy Distortions and Aggregate Productivity with Heterogeneous Establishments" *Review of Economic Dynamics*, 11(4), pp. 707-720. <https://doi.org/10.1016/j.red.2008.05.002>.
- Restuccia, Diego, and Richard Rogerson (2017). "The Causes and Costs of Misallocation" *Journal of Economic Perspectives*, 31(3), pp. 151-174. DOI: 10.1257/jep.31.3.151.
- Rijkers, Bob, Caroline Freund, and Antonio Nucifora (2017). "All in the Family: State Capture in Tunisia" *Journal of Development Economics*, 124(C), pp. 41-59.
- Rijkers, Bob, Leila Baghdadi, and Gaël Raballand (2017). "Political Connections and Tariff Evasion: Evidence from Tunisia" *The World Bank Economic Review*, 31(2), pp. 459-482.
- Shambaugh, George E. and Elaine B. Shen (2018) "A Clear Advantage: The Benefits of Transparency to Crisis Recovery." *European Journal of Political Economy*, 55, pp. 391-416.
- Solow, Robert M. (1957). "Technical Change and the Aggregate Production Function" *Review of Economics and Statistics*, 39(3), pp. 312-320. <https://doi.org/10.2307/1926047>.
- Stokey, Nancy L. (2012). "Catching Up and Falling Behind" Becker Friedman Institute for Research in Economics Working Paper, No. 2012-015. Available at SSRN: <https://ssrn.com/abstract=2192207> or <http://dx.doi.org/10.2139/ssrn.2192207>.
- Sundberg, Ralph, and Erik Melander (2013). "Introducing the UCDP georeferenced event dataset" *Journal of peace research*, 50(4), pp. 523-532.
- Vonyó, Tamás. (2020). "Recovery and reconstruction: Europe after the Second World War" In *The economics of the Second World War: seventy-five years on*, pp. 107-113. CEPR Press.
- Weinberg, Gerhard L. (2005). "A World At Arms: A Global History of World War II" Vol. 984. Cambridge University Press.
- World Bank (2020a). "The Fallout of War: The Regional Consequences of the Conflict in Syria" Washington, DC: World Bank Group.

- World Bank (2020b). "The Human Capital Index 2020 Update: Human Capital in the Time of COVID-19." Washington, DC: World Bank Group. <http://hdl.handle.net/10986/34432> License: CC BY 3.0 IGO.
- World Bank (2021). "Global Highlights". International Comparison Program.
- World Bank (2023a). "World Development Report 2023: Migrants, Refugees, and Societies" Washington, DC: World Bank Group. <http://hdl.handle.net/10986/39696> License: CC BY 3.0 IGO.
- World Bank (2023b). "The Business of the State" Washington, DC: World Bank Group.
- World Bank (2024a). "Global Economic Prospects, June 2024" Washington, DC: World Bank Group.
- World Bank (2024b). "Global Economic Prospects, January 2024" Washington, DC: World Bank Group.
- World Bank (2024c). "Gulf Economic Update, Spring 2024, Unlocking Prosperity: Transforming Education for Economic Breakthrough in the GCC" Washington, DC: World Bank Group.
- World Bank (2024d). "Tunisia Economic Monitor, Spring 2024, Renewed Energy to the Economy" Washington, DC: World Bank Group.
- World Bank (2024e). "Morocco Economic Monitor, Summer 2024, Unlocking the Potential of the Private Sector to Spur Growth and Job Creation" Washington, DC: World Bank Group.
- World Bank (2024f). "Poverty, Prosperity, and Planet Report 2024" Washington, DC: World Bank Group.
- World Bank (2024g). "Syria Economic Monitor: Conflict, Crises, and the Collapse of Household Welfare" Washington, DC: World Bank Group.
- World Bank (2024h). "The Impacts of the conflict in the Middle East on the Palestinian economy" September 2024 World Bank Economic Monitoring Report, consulted online at <https://thedocs.worldbank.org/en/doc/c25061ab26d14d7acc0330d5a7b4d496-0280012024/original/PalestinianEconomicUpdate-Sept2024-FINAL.pdf>.
- World Bank (2024i). "World Development Report 2024: The Middle-Income Trap" Washington, DC: World Bank Group. DOI: 10.1596/978-1-4648-2078-6. License: Creative Commons Attribution CC BY 3.0 IGO.

## Appendix

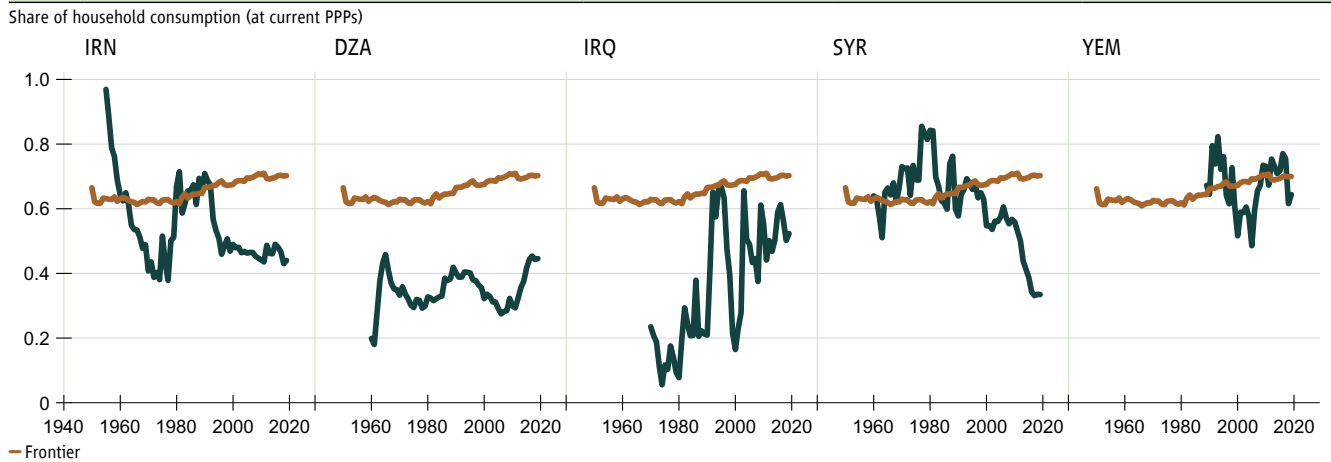
**Figure A1.** Propensity to consume in MENA oil importing countries and the frontier 1950–2019.



Source: World Bank staff calculations using data from the Penn World Table 10.01.

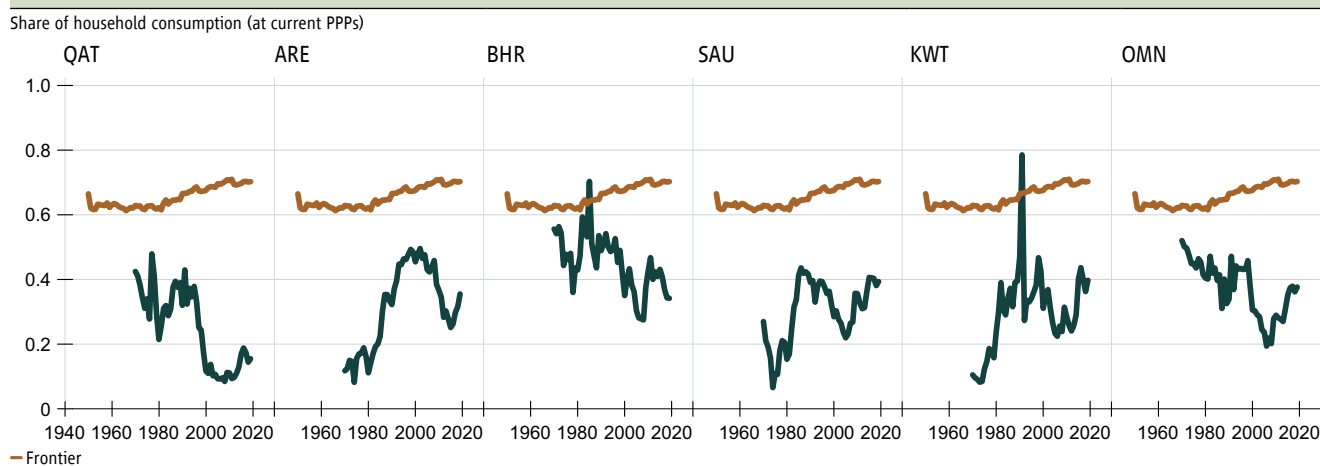
Note: EGY = Arab Republic of Egypt. TUN = Tunisia. JOR = Jordan, MAR = Morocco. PSE = The West Bank and Gaza. DJI = Djibouti. LBN = Lebanon. Each graphs shows the evolution of the propensity to consume (the share of household consumption at current purchasing power parities), 1950–2019. The variable in the Penn World Table is *cs<sub>h\_c</sub>*.

**Figure A2.** Propensity to consume in MENA developing oil exporters and the frontier, 1950–2019.



Source: World Bank staff calculations based on the Penn World Table 10.01.

Note: IRN = Islamic Republic of Iran. DZA = Algeria. IRQ = Iraq. SYR = Syrian Arab Republic. YEM = Republic of Yemen. Each graphs shows the evolution of the propensity to consume (share of household consumption at current purchasing power parities), 1950–2019. The variable in the Penn World Table is *cs<sub>h\_c</sub>*.

**Figure A3.** Propensity to consume in GCC countries and the frontier, 1950–2019.

Source: World Bank staff calculations based on data from the Penn World Table 10.01.

Notes: QAT = Qatar. ARE = United Arab Emirates. BHR = Bahrain. SAU = Saudi Arabia. KWT = Kuwait. OMN = Oman. Each graphs shows the evolution of the propensity to consume (Share of household consumption at current purchasing power parities), from 1950 to 2019. The variable in the Penn World Table is *cs\_h\_c*.

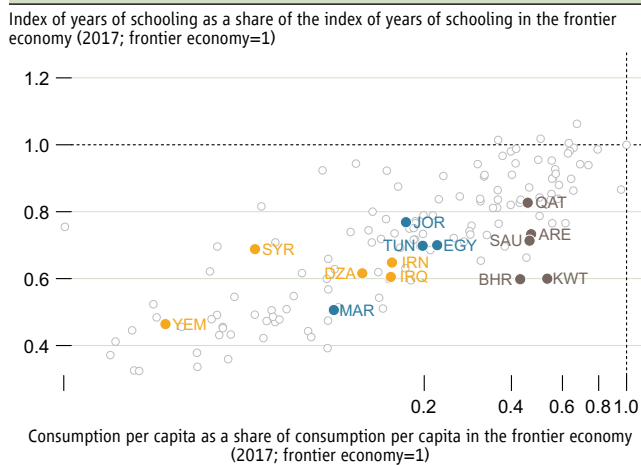
**Table A1.** Raw values for the development accounting exercise for the MENA region and the United States.

Country	Income per capita (1)	Consumption per capita (2)	Capital-output ratio (3)	Index of years of schooling (4)	Emp-to-pop ratio (5)
Frontier economy	60,117	42,328	1.9	3.74	0.48
Kuwait	56,271	22,532	1.9	2.24	0.57
United Arab Emirates	66,384	19,823	2.6	2.74	0.60
Saudi Arabia	48,487	19,572	2.0	2.67	0.39
Qatar	110,270	19,292	2.1	3.09	0.74
Bahrain	49,239	18,176	2.2	2.24	0.51
Islamic Republic of Iran	14,041	6,558	2.4	2.42	0.30
Iraq	11,523	6,500	1.6	2.26	0.22
Algeria	11,408	5,179	2.1	2.30	0.26
Republic of Yemen	1,429	1,083	3.6	1.74	0.19
Arab Republic of Egypt*	12,010	9,392	2.0	2.62	0.26
Tunisia	10,910	8,370	1.6	2.61	0.32
Jordan	10,581	7,329	1.8	2.88	0.24
Morocco	7,591	4,131	2.2	1.89	0.32

Source: World Bank staff calculations based on data from the Penn World Table 10.01.

Notes: The year of analysis is 2017. Income per capita is the output-side real GDP at current purchasing power parities (PPPs) (2017), divided by population. Consumption per capita is the product of the share of household consumption at current PPPs and the output-side real GDP at current PPPs (2017), divided by population. Capital-output ratio is the ratio of stock capital to GDP raised to the  $\alpha/(1-\alpha)$ , which equals 0.5. The index of years of schooling is based on the average years of schooling and an assumed rate of return to education. The employment-to-population ratio is the number of persons with jobs divided by population. Countries are sorted in groups (in descending order: Gulf Cooperation Council, developing oil exporters and developing oil importers), and sorted within groups in levels of consumption per capita. For the Arab Republic of Egypt, the capital-output ratio is the predicted value of the regression of capital-output ratio on income per capita for 179 countries.

**Figure A4.** Index of Years of schooling relative to the frontier, 2017.



Source: World Bank staff calculations based on data from the Penn World Table 10.01.  
 Note: YEM = Republic of Yemen, SYR = Syrian Arab Republic, MAR = Morocco, DZA = Algeria, IRQ = Iraq, IRN = Islamic Republic of Iran, JOR = Jordan, EGY = Arab Republic of Egypt, QAT = Qatar, ARE = United Arab Emirates, SAU = Saudi Arabia, BHR = Bahrain, KWT = Kuwait. Consumption per capita is the product of the share of household consumption at current purchasing power parities (PPPs) and the output-side real GDP at current PPPs, divided by population). The index of years of schooling is based on the average years of schooling and an assumed rate of return to education.

**Table A2.** Total natural resources rents (as a percent of GDP) for the MENA countries and the United States, 2017

	Country	Natural Resources Rent
	Frontier economy	0.4
GCC	Kuwait	36.8
	Saudi Arabia	24.5
	Oman	21.4
	Qatar	18.9
	United Arab Emirates	14.3
	Bahrain	11.2
	Iraq	39.2
DOE	Islamic Republic of Iran	17.5
	Algeria	15.4
	Syrian Arab Republic	3.1
	Republic of Yemen	1.9
	Arab Republic of Egypt	5.7
DOI	Morocco	3.3
	Tunisia	2.5
	Jordan	0.9
	Djibouti	0.6
	Lebanon	0.0
	The West Bank and Gaza	0.0

Source: World Bank staff calculations based on data from the *World Development Indicators*.  
 Note: GCC = Gulf Cooperation Council, DOE = developing oil exporters, DOI = developing oil importers. Total natural resources rents are the sum of rents from oils, natural gas, coal (hard and soft), minerals, and forests. The estimates of natural resources rents are calculated as the difference between the price of a commodity and the average cost of producing it. This is done by estimating the price of units of specific commodities and subtracting estimates of average unit costs of extraction or harvesting costs. These unit rents are then multiplied by the physical quantities countries extract or harvest to determine the rents for each commodity as a share of GDP.





**MIDDLE EAST AND NORTH AFRICA REGION  
ECONOMIC UPDATE OCTOBER 2024**  
**Growth in the Middle East and North Africa**