# GULF ECONOMIC UPDATE

Green Growth Opportunities in the GCC

Fall 2022

IBRD • IDA | WORLD BANK GROUP Middle East & North Africa

E WORLD BANK

## Gulf Economic Update

### Green Growth Opportunities in the GCC

Fall 2022

Middle East and North Africa Region

© 2022 International Bank for Reconstruction and Development/The World Bank 1818 H Street NW Washington DC 20433 Telephone: 202-473-1000 Internet: www.worldbank.org

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, and other information shown on any map in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Nothing herein shall constitute or be 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**

The material in this work is subject to copyright. Because The World Bank encourages dissemination of its knowledge, this work may be reproduced, in whole or in part, for noncommercial purposes as long as full attribution to this work is given.

Any queries on rights and licenses, including subsidiary rights, should be addressed to World Bank Publications, The World Bank Group, 1818 H Street NW, Washington, DC 20433, USA; fax: 202-522-2625; e-mail: pubrights@worldbank.org.

Cover photos courtesy of:

(top) PastryShop/shutterstock.com (center, left) Sids/Shutterstock.com (center, right) Husni Tawil/shutterstock.com (bottom) Audio and Werbung/shutterstock.com Further permission required for reuse.

Publication design and layout by The Word Express, Inc.

## TABLE OF CONTENTS

Acronymsvii Acknowledgementsix
Executive Summary
1. Recent Economic Developments
2. Outlook and Risks
3. Special Focus: Green Growth Opportunities in the GCC
Bibliography
Annex 1. Summary Statistics Table
Annex 2. Country Summary Tables

#### List of Figures

Figure 1	COVID-19 Cases are Low	2
Figure 2	Supported by High Vaccination Rates	2
Figure 3	as Governments Continue to Reduce COVID-19 Restrictions	2
Figure 4	Resulting in Mobility Reaching its Pre-Pandemic Levels in Most Countries	3
Figure 5	Recovery was Strong in 2021 Driven by Consumption and Investments	4
Figure 6	With PMI in Expansion Territory for All of 2021 and 2022	4
Figure 7	Resulting in Continued Strong Economic Performance Well Into 2022	4
Figure 8	Building on Strong Performance in the Non-Oil Sector in 2021	4
Figure 9	Despite Lagging Recovery Compared to Advance Economies, the GCC is Catching Up	5
Figure 10	Higher Inflation Rates Registered in Most Countries in 2021 and 2022	5
Figure 11	Driven by Higher International Commodity Prices	5
Figure 12	Despite Higher Inflation, GCC Average Remains Well Below Peers	5
Figure 13	GCC Tradable Consumption Shares	6
Figure 14	Estimates of the Impact of Tradable Product-Market Policy Responses on	
	Headline Inflation, March-July 2022	6
Figure 15	GCC Central Banks Following Fed's Tightening Policy in 2022	7
Figure 16	Higher Oil Prices Improved Fiscal Balances in 2021	9
Figure 17	Resulting in a Downward Trajectory for Debt Ratios	9
Figure 18	Higher Oil Exports Pushed GCC External Balance Surplus Beyond	
	Pre-Pandemic Levels	9
Figure 19	with Less Encouraging Contributions from Non-Oil Merchandise Exports	10
Figure 20	Only Bahrain has Managed to Close the "Competitiveness" Gap	10
Figure 21	The MENA Region is Expected to Perform Strongly when the Global Recovery	
	is Dealt a Blow	14
Figure 22	With Oil Exporters Benefiting from Strong Energy Prices Outlook	14
Figure 23	Growth in the GCC Region is Primarily Driven by the Hydrocarbon Sector	15
Figure 24	With Private Consumption and Investments Driving the Non-Oil Recovery	15
Figure 25	Individual GCC Countries are Expected to Register Strong Recovery Driven	
	by the Hydrocarbon Sector	16
Figure 26	OPEC Crude Oil Production Falling Short from Quotas	16
Figure 27	while Mainland Europe Gas Imports from Russia are Falling	16
Figure 28	The GCC Region is Projected to Register a Fiscal Surplus in 2022-the First	
	since 2014	18
Figure 29	with All Countries Reporting a Fiscal Surplus Except for Bahrain	18
Figure 30	Overall, Debt-to-GDP is on a Declining Trajectory	19
Figure 31	However, Government-Related Entities (GREs) Debt Remain a Source of	
	Vulnerability to the Public Sector	19
Figure 32	Double-Digit Current Account Balance Surplus is Anticipated for the Region	20
Figure 33	Driven by Higher Oil Receipts and Recovery of Service Exports	20
Figure 34	GCC Inflation is Expected to Rise in 2022 but Remain Subdued	21
Figure 35	Supported by High Subsidies, Continued Dollar Peg, and Tighter Monetary Policy	21
Figure 36	GCC Countries Need to Raise Productivity to Improve Growth Rates	24
Figure 37	Climate Finance Remains Below Target	24
Figure 38	but has Begun to Increase Rapidly with Global Focus on Climate Change	24
Figure 39	Global Investment in Energy Transition Technologies, 2020-2021	25



iv

Figure 40	Renewable Energy now Cheaper than Fossil Fuels	.26
Figure 41	GCC Solar Energy Capacity (2020–2021)	.26
Figure 42	GCC Wind Energy Capacity (2020–2021)	.27
Figure 43	Renewable Energy Jobs in 2030, by Technology	.33

#### List of Boxes

Box 1	Imperfect Pass-through of Global Inflation in the GCC6	;
Box 2	Tracking Recent Structural Reforms (focusing on Q2 and Q3 2022)11	
Box 3	OPEC+ Announces Production Cuts of 2 Million Barrels per Day (mbpd)17	7

## ACRONYMS

CPI	Consumer Price Index	OECD	Organization for Economic
FDI	Foreign Direct Investment		Co-operation and Development
GCC	Gulf Cooperation Council	OPEC	Organization of the Petroleum
GDP	Gross Domestic Product		Exporting Countries
GRE	Government-Related Entity	PMI	Purchasing Managers' Index
MENA	Middle East and North Africa	VAT	Value-Added Tax
NIF	National Infrastructure Fund		

## ACKNOWLEDGEMENTS

his report is the product of the Middle East and North Africa unit in the Macroeconomics, Trade, and Investment (MTI) Global Practice at the World Bank Group. The Macroeconomics section of the report was prepared by Khaled Alhmoud (Senior Economist, EMNMT) and Jaime de Pinies Bianchi (Senior Economist, EMNMT), with contributions from Xinyue Wang (Consultant, EMNMT).

The Green Growth Special Focus section was led by Ismail Radwan (Lead Country Economist and Program Leader EFI) in collaboration with a UNDP team led by Kirthisri Rajatha Wijeweera. The Bank drafting team included: Ismail Radwan, Reem Alsukait, Xiaonan Cao, Roger Gorham, Christopher H. Herbst, Johannes Koettel, Ali Marafi, and Shwetlana Sabarwal. The UNDP team included: Rajatha Wijeweera, Denis Korchunov, and Stephen Gitonga. The team received useful guidance from Khaled Alhmoud, Jaime de Pinies, Radoslaw Czapski, Arthur Kochnakyan, and Mohamed Kamh. Furthermore, the team would also like to thank the officials of the UK embassy in Riyadh and UK officials elsewhere for sharing their experience with developing renewables and clean hydrogen.

The entire report was developed under the guidance of Issam Abousleiman (Regional Director, GCC) and Eric Le Borgne (Practice Manager, EMNMT).

The authors are grateful to Ernest Sergenti (Senior Economist, MNACE), Hoda Assem (Consultant, MNACE), and Ashwaq Maseeh (Research Analyst, EMNMT) for their valuable inputs and contributions. Special thanks to Ekaterina Georgieva Stefanova (Senior Program Assistant, EMNMT) for administrative support.

Translation Services by Global Corporate Solutions – Translation and Interpretation (GCSTI).

Shahd Alhamdan, Alya S I S Alaskari, and Ashraf Al-Saeed managed cover photography, media relations, and dissemination.

From the Regional Director, GCC Countries Middle East and North Africa Region, World Bank Group ISSAM ABOUSLEIMAN

## FOREWORD

he world economy was on track for a strong, albeit uneven, recovery from COVID-19. However, the war in the Ukraine and supplychain disruptions, exacerbated by shutdowns in China due to the zero-COVID policy, are dealing a serious blow to global recovery. World GDP growth is now projected to slow sharply this year to around 2.9 percent and to edge up only slightly to 3 percent in 2023. This is well below the pace of recovery projected last January.

The GCC, however, is expected to show strong performance this year. The outlook for the GCC region is positive, driven by the robust performance of oil and non-oil sectors. Compared with other regions, the GCC region is a bright spot, projected to expand by 6.9 percent in 2022 before moderating to 3.7 percent in 2023. This has fully closed the performance gap with other high-income countries left by the pandemic and the GCC is now poised to outperform. Inflation is also relatively muted in the GCC compared to other high-income countries. However, raising interest rates in tandem with the U.S. Federal Reserve Board is likely to dampen domestic demand in the GCC economies at this time.

Booming hydrocarbon prices have eased pressure on fiscal balances and public sector debt and has increased current account surpluses in the GCC. External balance surpluses are expected to surge to 17.2 percent of GDP in 2022 before moderating to 13 percent in the medium term.

Despite efforts by GCC countries, diversification is still below potential. There is progress in the non-oil economy but limited success in non-oil exports. Structural reforms must be continued to help nurture a competitive private sector. There is however an excellent and timely opportunity to further diversify the economy using a green growth strategy. The extra windfall from higher oil prices to the GCC can be used to start new high-growth, green industries that would help the economies of the region grow by an extra 3-6 percent as detailed in the Focus section of this Update.

This year, the GDP of the GCC region is expected to be close to US\$2 trillion. If the GCC continued business as usual, their combined GDP would grow to an expected US\$6 trillion by 2050. However, embracing a green growth strategy could see the GCC GDP grow to over US\$13 trillion by 2050. The transition to a low-carbon economy has been accelerated by high oil and gas prices and the need for greater energy security in the wake of the war in Ukraine. Renewable energy industries will witness trillions of dollars of new investment as well as opportunities in upstream and downstream industries.

The Special Focus Section also emphasizes that there is no inherent long run trade-off between

emissions reductions, economic growth, and poverty alleviation. Moving away from fossil fuels toward a greener future should not be seen as a threat but as a tremendous opportunity, as the costs of renewable energy have fallen dramatically in recent years. The region already has three record-breaking, low-cost auctions for solar energy supply in Qatar, UAE, and Saudi Arabia. The region also has the potential to be a lead producer of green and blue hydrogen. With the right regulations, policies, and investments to support the transition, GCC countries can emerge with stronger, more sustainable economies that generate rewarding jobs for their youth while simultaneously protecting the planet. Finally, this report highlights potential pathways for GCC countries to benefit from and play a leading role in the global transition to a low-carbon economy. The region could use the green growth transition to focus policies on developing green technologies and associated skilled labor that would reverse trends in productivity and enable the region to grow faster. The Special Focus section highlights the size of the addressable market for green growth, focusing on the major sectors of the green economy: renewable energy, green buildings, sustainable transport, water management, and waste management. In addition, it covers green finance as a critical enabler for new investments.



## **EXECUTIVE SUMMARY**

he GCC countries were characterized by a robust economic rebound from the pandemic in 2021 and the first half of 2022 as well as restoration of external and fiscal positions following deep plunges in 2020. While COVID-19 has not vanished and short-lived surges still occur, the reduced lethality of new variants and the high vaccination rates among the six GCC countries have allowed the authorities to loosen restrictions on mobility and social interaction. Easing of pandemic restrictions and positive developments in the hydrocarbon market drove strong recoveries in 2021 and 2022 across the GCC. Deflation or very low inflation had been common amongst GCC countries during the global pandemic. But strong economic recovery and supply chain bottlenecks raised inflation in the GCC to an average rate of 2.1 percent in 2021up from 0.8 percent in 2020. The effects of the war in the Ukraine in the first half of 2022 have continued to push inflation up in all GCC countries except Saudi Arabia. Rising interest rates, generous subsidies, and strong local currencies<sup>1</sup> that are mostly pegged to the U.S. dollar have eased the full passthrough of higher imported prices to GCC consumers and businesses, resulting in muted inflation in comparison to other high-income countries.

The increase in oil and gas prices precipitated by the war in Ukraine is projected to provide a windfall for the GCC; it has also placed energy security at the forefront of major importers' agenda, which could accelerate the global green growth transition. The GCC region is projected to expand by 6.9 percent in 2022 before moderating to 3.7 percent in 2023 and 2.4 percent in 2024, driven by stronger hydrocarbon and non-hydrocarbon sectors. Higher oil prices will be reflected as strong twin surpluses (fiscal and external) in the GCC which should help to spur consumer confidence and investments. However, high uncertainty surrounds the oil market outlook with recent decisions by the OPEC+ alliance of a more cautious production approach in light of a weakening global economic outlook to set a floor under softening oil prices. Reduction in oil output would not only risk slower economic growth but might shrink the anticipated fiscal and external surpluses in the near-term.

The faster and bolder efforts to decarbonize the global economy, which the war in Ukraine is likely to accelerate, imply that it is critical to invest the windfall in the GCC's economic and environmental transition. These global developments intensify the urgency to speed up the diversification of GCC economies to reduce the risk from their dependence on hydrocarbons, especially as countries around the world are committed to transitioning to

<sup>&</sup>lt;sup>1</sup> Kuwait Dinars is pegged to a basket of currencies.

greener development paths. The surge in hydrocarbon prices is already dramatically accelerating this trend in many countries. This presents a window of opportunity for the GCC countries to transition to a green growth strategy and accelerate economic diversification by investing their windfall into sustainable sectors. Our Special Focus elaborates on this.

Special Focus: Green Growth Opportunities in the GCC: The world is locked in an existential crisis. Combatting climate change and global warming is the defining challenge of the 21st century. The evidence of the impending catastrophe is all around us, including wildfires raging, flooding on an unprecedented scale, increased tropical storms, regular droughts, and rising sea levels. Accordingly, many countries have announced their own emissions reduction targets including ambitious pledges by countries in the GCC. However, there has been a perception of a push back from several areas including oil exporting countries, beneficiaries of fossil fuel subsidies, and energy-intensive industries. Moving away from fossil fuels towards a greener future should not be seen as a threat but as a tremendous opportunity. The GCC countries stand to gain from this transition. The region already has the three record-breaking, low-cost auctions for solar energy supply and has the potential to be a lead producer and exporter of clean energy. This direction is entirely in line with GCC country vision documents that outline an image of the economy of the future that relies increasingly on the private sector playing a leading role in investment, job creation, and value addition. This section highlights potential pathways for GCC countries to benefit from and play a leading role in the global transition to a low-carbon economy within their own visions of economic diversification.





#### Key Take Away Charts: Recent Economic Trends in the GCC Economies







Higher oil prices have strengthened fiscal positions...



...however, GCC average remains well below peers...







XV

### الملخص التنفيذي

هدت دول مجلس التعاون الخليجي انتعاشاً اقتصادياً قوياً من جائحة كورونا في عام 2021 والنصف الأول من عام 2022، لبالإضافة إلى تعزيز مراكز المالية العامة والحساب الجارى في أعقاب حالات الهبوط الحادة التي شهدتها هذه المراكز في عام 2020. ومع أن جائحة كورونا لم تختف بعد ولا تزال تحدث طفرات قصيرة الأمد، فإن انخفاض معدل الوفيات للسلالات الجديدة وارتفاع معدلات التطعيم بين دول المجلس الست قد أتاح للسلطات تخفيف القيود المفروضة على التنقل والتفاعل الاجتماعي. وأدى تخفيف القيود المرتبطة بالجائحة، والتطورات الإيجابية في أسواق النفط إلى تحقيق حالات تعاف قوي في عام 2021 و2022 في جميع دول المجلس، في حين بقيت معدلات التضخم منخفضة بين دول المجلس خلال الجائحة العالمية. لكن الانتعاش الاقتصادى القوى واختناقات سلاسل الإمداد رفعت معدل التضخم في دول المجلس إلى معدل يبلغ %2.1 في المتوسط عام 2021 (ارتفع من 0.8% في عام 2020). واستمرت آثار الحرب في أوكرانيا في النصف الأول من عام 2022 في دفع التضخم إلى الأعلى في جميع دول مجلس التعاون، باستثناء المملكة العربية السعودية. وأدى ارتفاع أسعار الفائدة، والدعم السخى، وقوة العملات المحلية التي يرتبط معظمها بالدولار الأمريكي إلى تخفيف انتقال الارتفاع في أسعار الواردات بشكل كامل إلى المستهلكين والشركات في دول المجلس، مما أدى إلى انخفاض معدل التضخم مقارنة بالدول الأخرى المرتفعة الدخل.

ومن المتوقع أن تتيح الزيادة في أسعار النفط والغاز نتيجة للحرب في أوكرانيا مكاسب غير متوقعة لدول مجلس التعاون، لكنها أيضاً أدت إلى وضع ملف أمن الطاقة في صدارة جدول أعمال المستوردين الرئيسين، مما قد يؤدي إلى سرعة وتيرة التحول العالمي إلى النمو الأخضر. ومن المتوقع أن تحقق منطقة مجلس التعاون الخليجي نمواً في النشاط الاقتصادي بنسبة 9.60 عام 2022 قبل أن يتراجع المعدل إلى %3.7 و%2.4 عامي 2023 و2024 على التوالي، وذلك بدفع من القطاعات النفطية وغيرها من القطاعات. وسيظهر ارتفاع أسعار النفط نتيجة للحرب في أوكرانيا كفوائض مزدوجة قوية (المالية العامة والحساب

الجاري) في دول مجلس التعاون الخليجي، وهو ما سيساعد على حفز ثقة المستهلكين والاستثمارات. غير أن حالة عدم اليقين الكبيرة تحيط بآفاق أسواق النفط مع الإشارات الأخيرة التي أبداها تحالف أوبك+ بشأن اتباع نهج إنتاج أكثر حذرا في ضوء ضعف الآفاق الاقتصادية العالمية وذلك لدعم اسعار النفط في ظل تراجعها في الاونة الاخيرة. ولن يؤدي انخفاض إنتاج النفط إلى مخاطر بطء النمو الاقتصادي فحسب، بل قد يؤدي إلى تقليص الفوائض المتوقعة في المالية العامة والحساب الجاري على المدى القريب.

وتشير الجهود المتسارعة والجريئة لتقليل اعتماد الاقتصاد العالمي على الكربون، والمرجح أن تزيد الحرب في أوكرانيا من وتيرتها، إلى أهمية استثمار المكاسب النفطية غير المتوقعة في دول مجلس التعاون الخليجي لتحقيق التحول الاقتصادي والبيئي. وتزيد هذه المستجدات العالمية الحاجة الملحة لزيادة وتيرة عملية تنويع اقتصادات هذه الدول بغية الحد من مخاطر اعتمادها على القطاعات النفطية، لا سيما وأن الدول في جميع أنحاء العالم تلتزم بالتحوّل إلى مسارات تنمية خضراء أكثر مراعاة للبيئة، وأن الزيادة الكبيرة في أسعار النفط تعمل بالفعل فرصة لدول مجلس التعاون الخليجي للنهوض بإستراتيجيتها للنمو فرصة لدول مجلس التعاون الخليجي للنهوض بإستراتيجيتها للنمو غير المتوقعة في القطاعات الاكثر استدامة. ويتناول القسم المعنون في هذا التقرير «تركيز خاص» الموضوع باستفاضة.

تركيز خاص: فرص النمو الأخضر في دول مجلس التعاون الخليجي: يواجه العالم أزمة وجودية. مكافحة تغير المناخ والاحتباس الحراري هو التحدي الحاسم في القرن الحادي والعشرين. والشواهد على الكارثة الوشيكة تحيط بنا جميعا—حرائق مستعرة للغابات ، والفيضانات على نطاق غير مسبوق، وتزايد العواصف المدارية، ونوبات الجفاف المنتظمة، وارتفاع منسوب مياه البحر. وبناء على ذلك، أعلنت العديد من الدول عن أهدافها الخاصة بتخفيض الانبعاثات، بما في ذلك التعهدات الطموحة من جانب دول مجلس التعاون الخليجي. غير أن هناك عدم

التزام في عدة مجالات من بينها الدول المصدرة للنفط، والمستفيدون من دعم الوقود الأحفوري، والصناعات كثيفة الاستخدام للطاقة. ينبغي ألا ينظر إلى الابتعاد عن الوقود الأحفوري نحو مستقبل أكثر مراعاة للبيئة على أنه تهديد، بل على العكس من ذلك تماما، يجب النظر اليه كفرصة هائلة. وحتى داخل مجلس التعاون الخليجي، أو ربما داخله على وجه الخصوص، فإن الدول ستجني مكاسب كبيرة من هذا التحول، والدليل على ذلك ان دول الخليج حققت ثلاث مزادات قياسية عالمية منخفضة التكلفة

لإمدادات الطاقة الشمسية، ومحكنها أن تكون منتجا رئيسيا للهيدروجين الأخضر والأزرق. ويتسق هذا الاتجاه تماما مع وثائق الرؤية لدول المجلس التي تحدد صورة لاقتصاد المستقبل الذي يعتمد بصورة متزايدة على قيام القطاع الخاص بدور رائد في الاستثمار وخلق فرص العمل والقيمة المضافة، ويسلط هذا القسم الضوء على المسارات المحتملة لدول مجلس التعاون الخليجي للاستفادة من التحول العالمي إلى اقتصاد منخفض الانبعاثات الكربونية ولعب دور قيادي فيه.





#### رسوم بيانية عن الاستنتاجات الرئيسية: احدث الاتجاهات الاقتصادية في دول مجلس التعاون الخليجى

المصادر: قطاع الممارسات العالمية للاقتصاد الكلي والتجارة والاستثمار، البنك الدولي.

### RECENT ECONOMIC DEVELOPMENTS<sup>2</sup>

#### War in the Ukraine

Surges in COVID-19 occurred at the beginning of 2022, but they were short-lived. Unlike previous episodes the death rate has been very low, attesting to the weakened lethality of new COVID-19 strains and the efficacy of high vaccination rates in the GCC countries. Additionally, the war in Ukraine which has caused energy and food prices to rise globally this year. On balance, the latter is economically favorable for GCC countries which are net exporters of energy.

#### Restrictions arising from COVID-19 have been eased and economic recovery has strengthened in the GCC.

Low COVID-19 cases and high vaccination rates supported economic recovery. While COVID-19 has not vanished and short-lived surges still occur (Figure 1), the reduced lethality of new variants and the high vaccination rates among the six GCC countries (Figure 2) have allowed the authorities to loosen restrictions on mobility and social interaction (Figure 3). This has had a beneficial effect on mobility which has returned to or exceeded pre-pandemic levels in Bahrain, Qatar, UAE, and Saudi Arabia, with Oman and Kuwait close behind (Figure 4). While the risk of new infections cannot be ruled out, the GCC countries appear to have shrugged off the most economically damaging effects of the COVID-19 health crisis.

#### Recovery has been mostly due to the non-hydrocarbon economy in 2021.

COVID-19 restrictions greatly affected the real GDP growth of the GCC which contracted by nearly 5 percent in 2020, but loosening restrictions contributed to a strong recovery. Real GDP growth expanded by 2.9 percent in 2021, with private consumption and fixed investment leading aggregate demand growth in the GCC countries (Figure 5). The PMI, which measures economic trends in the manufacturing and service sectors as

<sup>&</sup>lt;sup>2</sup> The data cut-off for the economic estimates and projections in this report is September 26, 2022. Any data published after that date will be reported in the next edition.





Source: Johns Hopkins University CSSE COVID-19 Data from Our World in Data.

FIGURE 3 • ...as Governments Continue to Reduce COVID-19 Restrictions...



Source: Oxford COVID-19 Government Response Tracker. Last updated Sep 13, 2022. Note: The stringency index is a composite measure based on school closures, workplace closures, and travel bans. Rescaled to a value from 0 to 100 (100=strictest).

viewed by purchasing managers, has been above 50, reflecting expansions, for all of 2021 and well into the current year (Figure 6). This is clearly reflected in the quarterly GDP data for 2022 published by some GCC countries, notably in Saudi Arabia, Bahrain and the UAE (Figure 7). For the GCC countries that compile

FIGURE 2 • ...Supported by High Vaccination Rates...



Source: https://ourworldindata.org/covid-vaccinations.

PMI data, Qatar stands out given the last-minute preparations for the FIFA World Cup which is set to begin in November.

#### The oil sector is gaining momentum in 2022.

A review of the hydrocarbon and non-hydrocarbon sectors shows that the latter was the key driver of growth for most of the GCC countries in 2021 (Figure 8). During the first half of that year, oil prices reached historical nadirs. The exception to this growth pattern was Oman where a buoyant hydrocarbon sector in the second half of 2021 compensated for a sluggish recovery in the non-hydrocarbon economy. With a slightly lower vaccination rate than other GCC countries, COVID-19 restrictions lasted longer in Oman which slowed the recovery in the non-hydrocarbon sector relative to other GCC countries. In addition, a sharp drop in the agricultural sector from droughts, and the contraction in non-oil industry (mainly construction in response to higher inputs prices) also explained a slower recovery in Oman.

Most GCC countries had reached prepandemic levels of growth in 2021. As we noted in the last *Gulf Economic Update* and compared with





#### FIGURE 4 • ....Resulting in Mobility Reaching its Pre-Pandemic Levels in Most Countries...

Source: Google COVID-19 Community Mobility Reports.

other high-income countries, the GCC recovery was lagging. Nonetheless, the boom in commodity prices from the war in Ukraine and the differential effects between oil exporters and importers is expected to close the performance gap in the current year (Figure 9).

#### Inflation has climbed steeply in the GCC, but it is significantly lower than in other high-income countries.

Inflationary pressures were already underway in 2021 and accelerated with the war in **Ukraine.** Deflation or very low inflation had been common amongst GCC countries during the global pandemic (Figure 10). But strong economic recovery and supply chain bottlenecks raised inflation in the GCC to an average rate of 2.1 percent in 2021—up from 0.8 percent in 2020. The effects of the war in Ukraine in the first half of 2022 have continued to push inflation up in all GCC countries, with the exception of Saudi Arabia which has benefitted from the unwinding of base effects from its three-fold increase in the VAT rate in July 2020. Global geopolitical events have raised commodity prices, and in particular food and oil prices to



FIGURE 5 • Recovery was Strong in 2021 Driven by Consumption and Investments...

FIGURE 6 • ...with PMI in Expansion Territory for All of 2021 and 2022...



Source: Whole Economy, IHS Markit, Monthly.

FIGURE 7 • ...Resulting in Continued Strong Economic Performance Well Into

Source: WB Macro-Poverty Outlook, AM 2022.



Source: National Authorities.

Notes: Kuwait quarterly data updated only until 2020 Q4, Oman has no real GDP quarterly data available.

FIGURE 8 • ...Building on Strong Performance in the Non-Oil Sector in 2021...



Source: Haver Analytics and WB Macro-Poverty Outlook, AM 2022.

levels unseen in decades (Figure 11). While there has been some slippage in July and August 2022, commodity prices remain well above historic averages. Moreover, gas prices have continued their relentless climb especially in Europe where it has reached historic highs. Inflation among the GCC countries remains relatively muted in comparison to other highincome countries (Figure 12). The reasons for this subdued response are explored in greater depth in Box 1. Briefly, rising interest rates and strong currencies have eased the pass through of higher imported





**Despite Lagging Recovery Compared** 

to Advance Economies, the GCC is

FIGURE 9 •

Source: International Monetary Fund, World Economic Outlook Database, April 2022.



#### FIGURE 11 • ...Driven by Higher International Commodity Prices

Source: World Bank Commodity Price Data, September 2022.

prices on to GCC consumers and businesses.<sup>3</sup> Food is also a small component of the CPI in the regional basket. Subsidies on fuel and electricity via price controls in most GCC countries and rent controls in some countries like the UAE are additional reasons for the muted inflation response. Base effects (more precisely their unwinding) in Saudi Arabia from the rise in the VAT rate in 2020 is another factor.





Source: Haver Analytics and WB Macro-Poverty Outlook, AM 2022.



#### FIGURE 12 • Despite Higher Inflation, GCC Average Remains Well Below Peers

Source: Haver Analytics, International Monetary Fund and WB Macro-Poverty Outlook, AM 2022.

Since the beginning of 2022, the GCC central banks raised interest rates five times following the U.S. Federal Reserve Board's (Fed) tightening monetary policy (Figure 15). With much



<sup>&</sup>lt;sup>3</sup> All GCC country currencies are pegged to the U.S. dollar, except in Kuwait where the dollar remains a key factor in the basket of currencies targeted by the Central Bank of Kuwait.

#### BOX 1. IMPERFECT PASS-THROUGH OF GLOBAL INFLATION IN THE GCC

Broadly speaking, domestic inflation is driven partly by global inflation and partly by domestic factors. The component of domestic consumer-price inflation driven by global inflation is called "tradable" inflation by economists, because it refers to the price behavior of goods that are traded in international markets and usually denominated in U.S. dollars. Another component of domestic inflation is driven by largely domestic factors that affect the price of "non-traded" goods and services.

To the extent that the GCC countries are "small open economies" on the demand side of the global markets, their inflation rate of tradable goods is driven by two key variables global inflation denominated in U.S. dollars and the country's exchange rate relative to the U.S. dollar—that is, how much a specific good costs in dollars and how much it costs to acquire those dollars. This description refers to the demand side of global markets, not the supply side. A country may be able to influence global prices—and thus global inflation—by being, say, a large producer of a particular commodity, such as Saudi Arabia (or OPEC+) for oil. But a country is less likely to affect global prices through its consumption of globally traded goods (China's imports of some commodity products is an exception). As small open economies, GCC countries are price takers as consumers of tradable goods.

Even though they cannot affect the global price of a tradable good, national policymakers can affect its domestic price through product-market interventions such as price controls or consumption subsidies. However, the pass-through from global inflation to domestic inflation is not one-for-one because:

- Tradable goods account for far less than 100 percent of domestic consumption;
- Exchange rates can fluctuate, thus augmenting or reducing the impact of changes in global prices denominated in U.S. dollars; and
- Governments can respond to inflation through productmarket interventions that affect the domestic prices of tradable goods.

The tradable consumption share is key to understanding the extent to which exchange rate fluctuations and policy interventions affect domestic inflation rates. The formal derivation of the relationship between headline inflation and global inflation under the small open economy assumption as well as a description of the datasets used in the subsequent calculations appears in Belhaj et. al., 2022.<sup>a</sup> As GCC currencies are either pegged to or track the U.S. dollar very closely, the subsequent analysis focuses on the impact of policy interventions.

Figure 13. GCC Tradable Consumption Shares shows the tradable consumption shares for the 6 GCC countries. The 4 countries represented by blue bars publish enough detailed data to compute tradable consumption shares with relative precision, while consumption shares had to be imputed for the two countries represented by orange bars. These countries–Kuwait and the UAE–provide CPI data for the main price categories but do not offer public access to detailed data on



#### FIGURE 13 • GCC Tradable Consumption Shares

*Source*: World Bank Staff calculations based on data from Haver Analytics and national statistical offices of individual countries.

#### FIGURE 14 • Estimates of the Impact of Tradable Product-Market Policy Responses on Headline Inflation, March-July 2022



Source: World Bank Staff calculations based on data from Haver Analytics and national statistical offices.

Note: The United Arab Emirates is excluded because it does not publish monthly data for the current year.

(continued on next page)

6

#### BOX 1. IMPERFECT PASS-THROUGH OF GLOBAL INFLATION IN THE GCC (continued)

the subcomponents of these categories. The countries are ranked, left to right, along the horizontal axis by their GDP per capita adjusted for purchasing power parity, from poorest to richest. Less affluent countries tend to have higher tradable consumption shares than do more affluent countries, as the less affluent spend a larger share of their income on food, energy, and clothing than do the more well-off (Lederman and Porto 2016).<sup>b</sup>

Figure 14. Estimates of the Impact of Tradable Product-Market Policy Responses on Headline Inflation, March-July 2022 shows the extent to which product-market policies implemented since February 2022 have affected inflation across GCC countries. The UAE is not included in the analysis because it does not publish monthly data for the current year. The orange bars represent average reported inflation from March to July 2022, while the gray bars show the counter-factual average inflation rate that would have been observed had there been no changes in product-market policies for the period March–July 2022. The effect of countries' product-market policies on inflation is TABLE 1 • Estimates of the Net Effect of Product-Market Interventions on Average National Year-on-Year Headline Inflation, February-July 2022 (percentage points)

Country	Percentage Points Relative to Observed Inflation Rates
Oman	-2.4
Kuwait	-2.2
Saudi Arabia	-1.6
Qatar	-0.8
Bahrain	-0.6

*Source*: World Bank Staff calculations based on data from Haver Analytics and national statistical offices.

*Note:* The United Arab Emirates is excluded because it does not publish monthly data for the current year.

calculated by removing the impact of the global tradable inflation components from headline inflation.

As the figure shows, inflation in the GCC was lower than in the United States, which is portrayed by the horizontal red line. In addition, inflation would have been higher if GCC countries had not implemented product-market policies for the period March–July 2022. Table 1 Estimates of the Net Effect of Product-Market Interventions on Average National Year-on-Year Headline Inflation, February–July 2022 (percentage points) presents the estimated net impact of product-market policies implemented since the onset of the war in Ukraine. All the countries in the sample succeeded in attenuating domestic inflation in response to rising global inflation.

<sup>a</sup> Belhaj, Ferid; Gatti, Roberta; Lederman, Daniel; Sergenti, Ernest John; Assem, Hoda; Lotfi, Rana; Mousa, Mennatallah Emam. 2022. "A New State of Mind: Greater Transparency and Accountability in the Middle East and North Africa" Middle East and North Africa Economic Update (October), Washington, DC: World Bank.

<sup>b</sup> Lederman, Daniel, and Guido Porto (2016). "The price is not always right: on the impacts of commodity prices on households (and countries)." The World Bank Research Observer, 31(1), pp. 168–197.



#### FIGURE 15 • GCC Central Banks Following Fed's Tightening Policy in 2022

Source: The Public Broadcasting Service, National Authorities.

higher inflation in the United States, the Fed has indicated, and markets expect, it will continue to raise interest rates in the coming guarters. This presents a policy conundrum for GCC countries since pegged exchange rates to the dollar imply that they will have to follow U.S. monetary policy. This is probably excessive for internal demand management purposes for the GCC economies at this time. Higher interest rates have already been accompanied by a steep deceleration in private sector credit growth in Qatar which had been growing at approximately 14 percent in mid-2021 to currently below 2 percent. The real effective exchange rate of Saudi Arabia has also appreciated by 20 percent (as of July 2022) which acts as a brake on non-oil exports. Much higher interest rates following the U.S. Fed may well prove to be increasingly counterproductive for the GCC countries and their aspiration to diversify the non-oil economy, that is, to expand the private sector in the economy.

#### Booming hydrocarbon prices have eased pressure on fiscal balances and public sector debt.

Higher oil receipts supported fiscal positions of GCC countries. During the pandemic, government expenditures were increased to alleviate impacts of social distancing restrictions and to backstop forbearance measures, at a time when revenues were compressed in 2020 due to lessened economic activity and highly depressed oil prices. This pushed public sectors among all the GCC countries deeply into deficit. However, recovery in 2021 and the tightening of hydrocarbon prices in the second half of the year greatly improved the fiscal balance situation and actually restored surpluses in Qatar and UAE (Figure 16). The improving trend in public finance has intensified during the first half of 2022 on the heels of booming energy prices. In Saudi Arabia, higher oil revenues and fiscal consolidation measures have shifted the fiscal balance from a deficit of SAR 73 billion (2.4 percent of GDP) in 2021 to a surplus of SAR 135 billion (6.8 percent of GDP) during H1 2022. In the UAE, hydrocarbon revenue rose strongly in 2022, thereby pushing the fiscal balance to comfortable positions while steps to underpin revenue diversification are underway with the recent introduction of a corporate income tax effective in 2023.

Similarly, strong oil receipts coupled with the implementation of the economic diversification program and the eventual introduction of the VAT, in line with other GCC peers, will enable Kuwait and Qatar to diversify revenues and enhance fiscal sustainability. Meanwhile, Oman's revenues also increased 54 percent during the first half of 2022 driven by higher sales of oil and natural gas and the introduction of VAT in 2021, which resulted in a 33 percent increase in non-oil revenues. As a result, Oman's budget swung into a surplus of US\$2 billion (nearly 2 percent of GDP) in the first half of 2022. Government revenues increased by 52 percent in the first half of 2022 in Bahrain due to higher oil prices and a doubling of the VAT rate. Higher revenues more than compensated the rise in expenditures resulting in a fiscal surplus of US\$88 million (0.2 percent of GDP) during the first half of 2022.

**Correspondingly, financing needs of the region declined since the second half of 2021.** Public sector debt-to-GDP ratios expanded significantly to cope with pandemic in 2020. They began declining in 2021 (Figure 17). Nonetheless, most GCC countries began with relatively low levels of debt which remain fully sustainable. With higher oil prices and renewed fiscal reform momentum, Bahrain and Oman's fiscal and external vulnerabilities are also improving debt and foreign exchange reserve dynamics.

### *Higher energy receipts widened current account surpluses in the GCC.*

**Booming commodity prices have strengthened external account surpluses for the GCC countries.** Historically low oil prices in 2020, below US\$40 pb, led to a deficit in the region's aggregate current account. But the external balance swung into a surplus of 8 percent of GDP in 2021, when oil prices climbed to US\$70 pb (Figure 18). Bahrain and Oman both recorded dramatic improvement in their external balances following the rise in energy prices in the second half of 2021. Their current account deficits shifted from 9.3 percent of GDP in 2020 to a surplus of 6.7 percent in 2021 in the former and from a deficit of 11.7 percent to a surplus of 6 percent in the latter. Oil prices continued to strengthen during the first half of 2022 and GCC countries experienced even larger



FIGURE 16 • Higher Oil Prices Improved Fiscal Balances in 2021...

Source: Haver Analytics and WB Macro-Poverty Outlook, AM 2022. Note: Estimated 2020 and 2021 data for Kuwait. Quarterly data available for Qatar, Saudi Arabia and UAE.

external balance surpluses. Data from the first half of 2022, point to an excess of 8 percent of GDP for the full year.

However, non-oil merchandise exports continue to lag. With booming commodity prices, the external balance outlook for the GCC countries remains very favorable as detailed in the Outlook section. Yet the fact remains that most of the improvement in external balances is derived from the hydrocarbon sector. Only two entities in the region experienced significant growth in non-oil merchandise exports in 2021: Bahrain and Dubai (one of the seven emirates of the UAE) that have been forced to do so in large part because they have mostly depleted their hydrocarbon reserves (Figure 19). Diversification into non-oil exports is exceptionally hard given the wellknown "Dutch disease" issue, whereby currencies strengthen due to the exceptional competitive advantage of the oil sector. The current cyclical strength of the U.S. dollar adds to this more structural problem.

#### Despite previous efforts by GCC countries, diversification is still below potential and requires further reforms.

There is progress in the non-oil economy, but limited success in non-oil exports. All

FIGURE 17 • ...Resulting in a Downward Trajectory for Debt Ratios



Source: Haver Analytics and WB Macro-Poverty Outlook, AM 2022.





Source: WB Macro-Poverty Outlook, AM 2022.

GCC countries have been trying to diversify their economies. There has been success in terms of the growth of the non-oil sector which for the whole of the GCC represented 58 percent of regional GDP in 2012 and which currently represents 64 percent. But where progress has been limited is in the growth of non-oil exports in relation to GDP. Most GCC countries have



FIGURE 19 • ...with Less Encouraging Contributions from Non-Oil Merchandise Exports

Source: National Authorities, WITS, and WBG staff calculations

experienced very little growth in non-oil exports in the last two decades. In more recent years, countries such as Saudi Arabia have dedicated massive financial resources to diversify their economies as part of their National Visions and Strategies. Progress to date in expanding non-oil exports in relation to imports, however, has been limited (Figure 20). Only Bahrain has managed to close this "competitiveness" gap.

Structural reforms have progressed significantly. In this context, the socio-economic background that can support a competitive private sector is critical in order to have the basic conditions to expand the GCC's share in global non-oil exports. As noted, exchange rate regimes, monetary policies, and relative prices matter. So do structural reforms that can help nurture a competitive private sector. In this regard, the Gulf Economic Update tracks structural reforms implemented in recent guarters-this edition highlights some reforms that were implemented during Q2 and Q3 2022 in Box 2. Additionally, there is enormous potential to transform the GCC economies into competitive Green Growth powerhouses given the windfall from the current commodity boom. These green growth strategies are explored in the Special Focus section of this Gulf Economic Update.





10



#### FIGURE 20 • Only Bahrain Has Managed to Close the "Competitiveness" Gap (continued)

Source: World Bank and National Authorities.

#### BOX 2. TRACKING RECENT STRUCTURAL REFORMS (FOCUSING ON Q2 AND Q3 2022)

**Saudi Arabia continues to improve the investment environment:** Saudi Arabia's Ministry of Human Resources and Social Development issued 6 decisions to localize 33,000 jobs and activities and updated rules allowing workers to transfer employers without the consent of their present employer. The government also announced a new tourism law which includes streamlined licensing processes and tax exemptions or reductions to encourage new investments in the sector. Furthermore, the authorities announced new regulations offering e-visas to all GCC residents in an effort to make Saudi Arabia more accessible to tourism. In addition, the country made advances in fostering economic growth and job creation by unveiling a new program for research, development, and innovation that aims to create new jobs and contribute US\$16 billion to GDP by 2040. Moreover, Saudi Arabia established the Saudi Investment Promotion Authority to help facilitate more regional and international investments into the country.

**The UAE advances digital economy, green growth, and business environment agendas:** The UAE Cabinet approved a Digital Economy Strategy aiming to double the contribution of the digital economy to GDP within the next 10 years and formed the Higher Committee for Government Digital Transformation. Dubai's Virtual Assets Regulatory Authority became the world's first regulator to make its debut in the Metaverse. On the green economy front, the UAE joined the International Partnership for Hydrogen and Fuel Cells to facilitate and accelerate the transition to clean and efficient energy and approved 22 policies to accelerate the shift to a circular economy, with a focus on the manufacturing, food, infrastructure, and transportation sectors. Meanwhile, the UAE made several regulatory enhancements in the visa residency system (Golden Visa), restructuring the social welfare program by expanding the coverage to low-income citizens, targeting money laundry in the real estate sector, and controlling business partnerships between federal authorities and the private sector. Dubai established a debt management office to manage the sovereign debt portfolio and help meet the government's financing requirements.

**Qatar enhances contract enforcement and investment promotion:** Qatar's Shura Council approved a draft law concerning the establishment of the Investment and Trade Court to oversee legal disputes, including those in commercial contracts and bankruptcies. Foreign investors

(continued on next page)



#### BOX 2. TRACKING RECENT STRUCTURAL REFORMS (FOCUSING ON Q2 AND Q3 2022) (continued)

are now able to own up to 100 percent of listed companies and the "1,000 Opportunities Initiative," allows them to obtain investment opportunities offered by major foreign and local companies in the country.

Kuwait strengthens competition: Kuwait's Parliament approved a new law in 2021 to protect economic competition.

**Oman opens property ownership for investors:** The Ministry of Housing and Urban Planning clarifies the conditions under which expatriate investors can own real estate in Oman. In addition, the country issued new regulations to support home businesses.

**Bahrain introduces new financing schemes:** The Central Bank of Bahrain set new rules governing crowdfunding-based activities to help create new tools to finance small businesses and broaden the pool of liquidity. Bahrain also announced a new financing scheme for government housing, which includes raising loan ceilings and age requirement for beneficiaries.

Source: The Arab Gulf States Institute in Washington.



## **OUTLOOK AND RISKS**

#### As the pandemic pressure fades, the global outlook is now faced with another supply shock.

The world economy continues to suffer from a series of destabilizing shocks. Prior to the war in Ukraine, the world economy was on track for a strong, albeit uneven, recovery from COVID-19. However, the war and supply-chain disruptions, exacerbated by shutdowns in China due to the zero-COVID policy, along with trade restrictions are dealing a serious blow to the global recovery. Global GDP growth is now projected to slow sharply this year, to around 2.9 percent, and to edge up only slightly to a stillsubdued 3 percent in 2023 (Figure 21). This is well below the pace of recovery projected last January. Growth is set to be markedly weaker than expected in major economies. Many of the hardest-hit countries are in Europe, which is highly exposed to the war in Ukraine through energy imports (both volumes and prices) and refugee flows. Countries worldwide are being hit by higher commodity prices, which add to inflationary pressures and curb real incomes and spending, further dampening the recovery. This growth slowdown driven by an inflationary supply

shock will be paid through lower incomes and fewer job opportunities.

However, the MENA region is expected to perform strongly this year with a clear divide between oil exporters and importers. Activity in the MENA region is expected to expand by 5.5 percent in 2022–1.1 percentage points above previous projections—in part reflecting the impact of the war in Ukraine on hydrocarbon prices. This would be the region's fastest growth in a decade. The region, however, faces a growing divide between oil exporters—which on balance should benefit from higher hydrocarbon prices and high COVID-19 vaccination rates—and oil importers, which face higher food and energy prices, deteriorating external balances, and still-limited vaccination.

Energy prices are expected to stay high before moderating in 2023 and 2024 (Figure 22). The price of oil is forecast to average \$98 per barrel in 2022, a 42 percent increase from 2021, and its highest annual average since 2013. Prices are expected to fall slightly to \$90 per barrel in 2023 but will remain well above their 2016–21 average of \$60/ bbl. Higher prices reflect the marked reduction in



#### FIGURE 21 • The MENA Region is Expected to Perform Strongly when the Global Recovery is Dealt a Blow...





Source: GEP, June 2022.

Russian exports and continued strong oil consumption in advanced economies, despite the recent price increases. Furthermore, OPEC+ recent signals of a more cautious production approach in light of a weakening global economic backdrop seems to place a floor under near-term prices.

Higher energy prices will intensify and accelerate efforts to decarbonize the global economy and strengthen energy security. Notably, European countries that remain dependent on Russian oil and gas, will, in the short term, search for potential substitutes that will likely focus on Norway, MENA, and GCC hydrocarbon exporters as well as the United States. Furthermore, countries around the world were already committed to transitioning to greener development paths in their nationally determined contributions (NDCs) and latest COP agreements. The surge in hydrocarbon prices is already hastening this transition in many countries, and in some, a rethink of the role of nuclear energy is also in the offing. The rationale for renewable energy has become more evident with higher hydrocarbon prices, including among the oil exporting countries. The acceleration to decarbonizing economies and shifting to green growth creates a window of opportunity for the GCC countries that must be seized (see Special Focus section) and could contribute to further diversification of their economies.

Source: WB Macro-Poverty Outlook, AM 2022.

The global outlook continues to be clouded by uncertainty and subject to various risks. The global outlook is subject to various downside risks, including intensifying geopolitical tensions, growing stagflationary headwinds, rising financial instability, continuing supply strains, and worsening food insecurity. Rising food and energy prices are eroding real incomes and could aggravate social tensions in some countries. While the GCC has limited trade and investment relationships with Russia and Ukraine, a prolonged war will have an upside risk through higher energy prices.

#### The outlook for GCC region is positive driven by the strong performances of both oil and non-oil sectors.

In comparison to other regions, the GCC region is a bright spot. As global growth weakens, reflecting a deterioration in sentiment, inflation, and tightening financial conditions, the outlook for most developed and emerging markets has turned bleak. Whereas the outlook in the Gulf remains strong, supported not only by favorable global oil market conditions, but also and importantly—by harvesting the fruits of recently implemented structural reforms (see previous *Gulf Economic Updates*). Nonetheless, additional reforms





#### FIGURE 23 • Growth in the GCC Region is Primarily Driven by the Hydrocarbon Sector...

Source: WB Macro-Poverty Outlook, AM 2022.

will be required before the GCC economies can realize their full growth potential.

The GCC region is projected to expand by 6.9 percent in 2022 before moderating to 3.7 percent and 2.4 percent in 2023 and 2024, respectively. The strong performance is driven primarily by the hydrocarbon sector, which is projected to grow by 11.5 percent in 2022 (Figure 23). A spillover of the war in Ukraine has been that GCC oil production has increased faster than originally planned and in line with OPEC+ output quotas up to 2022 Q3. With recent signals for a more cautious approach to OPEC+ planned production, the oil sector is expected to continue expanding by 3.3 percent in the medium term. On the other hand, the non-oil sectors are set to continue expanding by 4.3 percent in 2022 and 2.9 percent in the medium term. The main contributors to growth during the forecast period are private consumption, (as all forms of social distancing have been relaxed across the region), fixed investments, and exports. Higher oil receipts will also be channeled to higher capital spending (Figure 24).

Despite a positive near-term outlook for the region, there will be divergence in individual country prospects. All GCC countries are projected to register strong recovery, however, GCC-OPEC members (i.e., Saudi Arabia, UAE, and Kuwait) are expected to

#### FIGURE 24 • ...with Private Consumption and Investments Driving the Non-Oil Recovery...



Source: WB Macro-Poverty Outlook, AM 2022.

grow faster than their non-OPEC peers (Figure 25). Higher oil production, especially in countries with spare oil capacity such as Saudi Arabia and UAE and subsequent spillovers in the non-oil activities, will likely accelerate economic activity in those countries. Saudi Arabia is projected to grow by 8.3 percent in 2022, with oil activity expected to expand by 15.5 percent while the non-oil sector continues its growth trajectory of 4.3 percent, supported by the announced economic relief package to shield low-income citizens from inflationary pressures. Meanwhile, in the UAE, oil GDP is projected to grow by 9.9 percent while nonoil sectors recover from the relaxing of COVID-related restrictions, resulting in overall GDP to grow of 5.9 percent in 2022. Oil production in Kuwait is also projected to increase by 13.4 percent in 2022 as new capacity at the Al Zour refinery comes online. Stronger domestic demand and credit growth will further build momentum of the non-oil sector, supporting the expansion of GDP by 8.5 percent. Qatar is expected to grow at 4 percent in 2022 on the back of a stronger hydrocarbon sector and the strengthening of the tourism sector as the country hosts the FIFA World Cup later in the year. Oman and Bahrain will experience strong recovery in 2022, with anticipated growth rates of 4.5 and 3.8 percent, respectively, benefiting from large projects implemented in the hydrocarbon sector-LNG



FIGURE 25 • Individual GCC Countries are Expected to Register Strong Recovery Driven by the Hydrocarbon Sector

Source: Macro-Poverty Outlook, AM 2022.

projects in Oman and the development of oil refinery and shale oil projects in Bahrain.

Going forward, international pressure might trigger production increases, particularly from countries with large spare capacity such as Saudi Arabia and the UAE. The OPEC+ structure balances between members that are unable to meet their oil supply targets (Figure 26), thereby providing extra room for those members with spare capacities to increase output (like Saudi Arabia and UAE). While at same time, the alliance recently signaled a more cautious production approach (cutting quotas by 2 mbpd) in light of a weakening global economic outlook to set a floor under softening oil prices (see Box 3 for more details). The oil market outlook is clouded with uncertainty, that is, global oil stocks and China's growth being at historical low levels will inevitably keep OPEC+ decisions in flux in response to global developments. Similarly, as Europe reduces its countries' dependence on Rus-



FIGURE 26 • OPEC Crude Oil Production Falling Short from Quotas...

FIGURE 27 • ...while Mainland Europe Gas Imports from Russia are Falling



Source: OPEC and Capital Economics.



Source: OPEC and Capital Economics.

#### BOX 3. OPEC+ ANNOUNCES PRODUCTION CUTS OF 2 MILLION BARRELS PER DAY (MBPD)

On Oct 5, 2022, OPEC+ alliance announced production cuts of 2 mbpd starting in November 2022, in light of uncertainty that surrounds the global economic and oil market outlooks. With OPEC+ group already producing at a much lower level than the quota (see Figure 26), this recent decision is expected to have a smaller effect production than the announced reduction in quotas. The shortfall of actual production levels from the declared quota reached as high as 1.3 mbpd in August 2022—there are even strong arguments that the difference was higher in September given the increasing scheduled quota. Accordingly, we expect that the actual production cut will reach a magnitude of 0.7 mbpd for the group collectively starting November 2022.

Against this background, Saudi Arabia, UAE, and Kuwait will cut oil production during the last 2 months of 2022 but this should have a minor impact on oil GDP average growth for the whole year. Similarly, the drop in production levels will be compensated for by higher oil prices, which will dampen the impact on oil receipts, and therefore the overall impact on fiscal and external balances.

As the oil market outlook is clouded with uncertainty, OPEC+ decisions will inevitably change in response to global developments. For instance, a change in China's consumption could swiftly bounce back if authorities decide to relax pandemic-related lockdowns. This would exert pressure on prices and might incentivize OPEC into pumping more oil.

sian gas (Figure 27), Qatar and Oman could benefit from ongoing expansion of LNG capacities to substitute for Russian exports and mitigate risk to energy supply. Despite intensification of the bidding process of the North Field in Qatar, which should see LNG production increase by 60 percent at mid-decade, there is no clear evidence yet that investments have been accelerated beyond what had been planned prior to the war in Ukraine. Furthermore, countries like Saudi Arabia, Oman, and the UAE that are able to deliver on and certify their green hydrogen energy projects could capture market share in Europe and replace Russian inputs of green hydrogen used in vehicles, heating, and shipping.

#### The GCC region is expected to register strong twin surpluses in 2022 and continue over the medium term.

The regional fiscal balance is projected to register a surplus in 2022—the first surplus since 2014 reflecting ongoing recovery, higher oil receipts, and fiscal consolidation efforts. The collective budget surplus for the GCC region is expected to reach 5.3 percent of GDP in 2022 before moderating to 4.2 and 2 percent of GDP in 2023 and 2024, respectively (Figure 28). This is a major improvement from the high deficits recorded in 2020 of 10.8 percent of GDP. The anticipated strong fiscal performance is not only driven by higher oil receipts, spurred by a sharp increase in oil and gas prices and higher production levels, but is also underpinned by ongoing recovery of non-oil activities and fiscal consolidation efforts. Bahrain doubling its VAT rate at the beginning of the year, Oman improving fiscal oversight and management by recently moving to a single treasury account, and Saudi Arabia strengthening credibility of its fiscal frameworks are just few examples of authorities' commitment to improve overall fiscal management. However, stronger revenues in the near-term might increase the risks of GCC governments to loosen fiscal policy, especially those with lower oil-price breakeven points and healthier balance sheets like Saudi Arabia, UAE, Kuwait, and Qatar.

Every GCC country is expected to register a fiscal surplus in 2022 except Bahrain, which is expected to remain in deficit (Figure 29). In Saudi Arabia, the budget balance should register a surplus of 6.8 percent of GDP in 2022-the first surplus in nine years-driven by higher oil receipts and fiscal consolidation measures. As noted in the previous section, most of the capital spending is channeled through the PIF and other state agencies which will provide a boost to non-oil sectors. In the UAE, fiscal balances will strengthen from both higher oil revenues and the introduction of CIT resulting in surpluses of 4.4 and 5 percent of GDP in 2022 and 2023, respectively. Meanwhile, the Kuwait fiscal balance is anticipated to register a surplus of 1.1 percent of GDP in 2022 supported by stronger oil revenues and lower spending. However, the surplus might widen even further (to 5.9 percent of GDP) if the newly elected Parliament





FIGURE 28 • The GCC Region is Projected to Register a Fiscal Surplus in 2022– the First Since 2014...

Source: WB Macro-Poverty Outlook, AM 2022.

approves government's proposal to suspend the Future Generations Fund (FGF) transfer during this fiscal year. The high premium expected for natural gas in Europe from geopolitical tensions should lead to surpluses for the fiscal balances in Qatar and Oman estimated at 6 percent and 5.7 percent of GDP, respectively. Higher oil revenues and the resumption of spending restraints under the Fiscal Balance Program will allow Bahrain to significantly narrow its fiscal deficit from 11.5 percent of GDP in 2021 to 3.5 percent of GDP in 2022; but the overall fiscal position remains under pressure over the medium-term amid declining oil prices and increasing interest burden from high debt.

The overall favorable fiscal position would immediately reduce borrowing needs. The collective debt as a share of GDP is on a downward trajectory relative to peaks reached in 2020. Accordingly, the region will be less reliant to access global capital markets and will shield itself from rising costs of borrowing and volatile risk appetite as global liquidity continues to tighten. Furthermore, balance sheet resilience will rise as net assets build providing insulation against future external shocks. In Bahrain, the debt-to-GDP ratio is projected to fall against the backdrop of narrowing deficits but continue to be elevated around 120 percent of GDP (Figure 30). Meanwhile, Oman's public debt-to-GDP ratio is forecasted to gradually decline to an average of 41 percent by 2024 (from 71 percent in 2020) with the authorities engaged in buying back higher yielding notes. In Saudi Arabia, public debt remains low and is expected to stay constant in nominal terms as the government plans to refinance the existing debt instead of using the large fiscal surplus to repay it.

However, contingent liabilities remain a challenge in the GCC. For instance, the UAE's



FIGURE 29 • ... with All Countries Reporting a Fiscal Surplus Except for Bahrain

18

Source: WB Macro-Poverty Outlook, AM 2022.



FIGURE 30 • Overall, Debt-to-GDP is on a Declining Trajectory...

Source: WB Macro-Poverty Outlook, AM 2022; IMF WEO.

#### FIGURE 31 • ...However, Government-Related Entities (GREs) Debt Remain a Source of Vulnerability to the Public Sector...



Source: IMF Feb 2022, UAE Article IV Consultations

government related entities (GRE's) remain a significant source of vulnerability and risk to the public sector, and the ability of GREs to meet their debt obligations is uncertain especially in an environment of increasing interest rates (Figure 31). Abu Dhabi's GRE debt increased by 32 percent from 2017 to US\$64.2 billion in 2020, while Dubai's GRE debt was US\$51 billion in 2020 (IMF February 2022). Contingent fiscal risks from GREs should be closely monitored and pre-emptively mitigated, and GRE efficiency and productivity must be improved.

#### The resilience of the region is best demonstrated by the double-digit external balance surplus in the medium term.

Surging oil receipts are expected to boost the external balance surplus to 17.2 percent of GDP in 2022 before moderating to 13 percent in the medium term (Figure 32). Economies that are most dependent on hydrocarbon exports are the ones with the expected highest surpluses— Kuwait, Qatar, and Saudi Arabia (Figure 33). Furthermore, improvements in the service sector exports will build on gains in oil exports and widen the surplus further. Travel and tourism exports in Dubai are on a recovery trajectory while Saudi Arabia's revival of religious and non-religious tourism and Qatar's FIFA World Cup will continue building momentum in service exports.

The prospect of continued high external current account surpluses across the GCC should help the region in rebuilding buffers that dropped significantly during the pandemic. This is especially the case for Bahrain and Oman where both countries suffered from severe balance of payments imbalances in 2020 coupled with limited access to financing options. Foreign reserves should also be restored and or strengthened as GCC countries continue with tighter fiscal policies, which lower overall import spending.

#### Inflation is expected to pick-up in 2022 in most GCC countries but remain subdued compared to other regions

After a period of low inflation and bouts of deflation, inflation is projected to reach 3.3 percent during 2022 before moderating to 2.5 percent in the medium term (Figure 34). As discussed extensively in the previous chapter, price levels are expected to rise in 2022 for all GCC countries, except for Saudi



FIGURE 32 • Double-Digit Current Account Balance Surplus is Anticipated for the Region

Source: WB Macro-Poverty Outlook, AM 2022.

Arabia where higher base-effects from raising the VAT, driven by strong recovery in the non-hydrocarbon sector and higher global food prices. As central banks in the Gulf will continue a tighter monetary policy path following the U.S. Federal Reserve policy outlook (Figure 35), inflation is anticipated to hover around 2.5 percent in the GCC region during 2023– 24, far below other markets (the GCC economies will be among the few advanced economies with positive real interest rates).

#### Risks to the outlook remain significant notwithstanding the recent oil price increase

A protracted war in Ukraine and associated economic sanctions could intensify policy uncertainty and raise supply costs for the global economy. The war is triggering global ripple effects through multiple channels, including commodity markets, trade, financial flows, displaced people, and market confidence. The war has markedly eroded near-term global economic prospects and raised the possibility of a global recession. The degree of escalation and duration of the military operations will determine economic implications on commodity and financial markets, trade, and overall confidence, indirectly dampening non-oil recovery in the GCC region. On the upside, the region would benefit from the windfall generated from higher energy prices.

International pressure might trigger production increases, in particular for countries with large spare capacity, such as Saudi Arabia and the UAE, which would materially boost economic activity. However, the OPEC+ alliance balances between members that are unable to meet their supply targets, thereby providing extra room for those members with spare capacities to increase output (like Saudi Arabia and UAE). While at same time, OPEC+ recently signaled a more cautious production



FIGURE 33 • Driven by Higher Oil Receipts and Recovery of Service Exports...

Source: WB Macro-Poverty Outlook, AM 2022.



FIGURE 34 • ...GCC Inflation is Expected to Rise in 2022 but Remain Subdued...



#### FIGURE 35 • ... Supported by High Subsidies, Continued Dollar Peg, and Tighter Monetary Policy...



Source: WB Macro-Poverty Outlook, AM 2022.

approach in light of a weakening global economic outlook to set a floor under softening oil prices. However, as oil market outlook is clouded with uncertainty, OPEC+ decisions will inevitably change in response to global developments.

Higher interest rates following tighter global financial conditions will dampen recovery and raise debt burdens. Central banks in the Gulf will import tighter monetary policy from the U.S. by virtue of their dollar pegs. This will act as headwinds on domestic demand and recoveries in the non-oil sectors. Despite relatively lower inflation expectations in the region, central banks will need to hike interest rates by more than they would have chosen in order to sustain their exchange rate anchor. Furthermore, tighter monetary conditions will raise debt servicing costs for existing loans, increasing vulnerability of households, businesses, and the banking sector. This is also the case with debt servicing costs for the public sector. Some governments in the Gulf had been issuing debt aggressively to finance large budget deficits witnessed since 2014.

Future COVID-19 outbreaks still a risk. Although there is some optimism that the global pandemic is evolving into an endemic, the possible resurgence of new and more contagious variants anywhere around the world still poses serious risks to Source: Federal Reserve System, FOMC Projections, Sept 2022.

economic recovery and trade supply chains. China's economic activity remains weak amid continued COVID-19 lockdowns, which raises serious concerns for global recovery and the future demand for oil.

In addition to oil price volatility, fiscal risks in the region stem from large public sectors and state-owned enterprises. Oil price volatility and uncertainty in the oil market will continue, which is especially detrimental for the fiscal sustainability of the region. GCC budgets remain dominated by rigid and high spending on wages, subsidies, and transfers that hamper the capacity of fiscal reform. Contingent liabilities in the form of state-owned enterprises, such as those in the UAE, pose significant risks to the outlook. The GCC needs to move to a more targeted social safety net that could support necessary reforms on the fiscal side.

Against risks, there is an opportunity: Oil windfall should be used to accelerate structural transformation to further diversify and increase the share of the private sector in the economies. The deteriorating global outlook and near-term risks associated with oil markets places diversification efforts as a top priority. The region is still strongly commodity dependent, with the hydrocarbon sector accounting for more than 30 percent of regional GDP and generating more than 50 percent of fiscal and



exports receipts. Higher oil prices exert pressure on GCC countries for faster output increases to compensate for lost production from Russia and make up for OPEC members (such as Nigeria and Angola) that have persistently missed their quotas. All of which push GCC countries towards more oil dependence. Structural reforms are therefore urgently needed, targeting strong, sustained, inclusive, and greener growth. The current hydrocarbon windfalls should play a valuable role in financing an accelerated transformation and adaptation of these reforms (see Special Focus section). Most notably, reforms that target private-sector development and growth and the creation of jobs are most needed.





## SPECIAL FOCUS: GREEN GROWTH OPPORTUNITIES IN THE GCC

his Special Focus outlines the opportunities for green growth in the GCC. A key finding is that there is no inherent long-run trade-off among emissions reductions, economic growth, and poverty alleviation. Making energy greener could increase global GDP by US\$98 trillion by 2050. Boosting investment in renewable energy would quadruple jobs in the sector to 42 million globally in the next 30 years, with healthcare savings eight times the cost of the investment. Moving away from fossil fuels towards a greener future should not be seen as a threat but as a tremendous opportunity.

Especially within the GCC, countries stand to gain from this transition to further diversify their economies, which could help achieving their own visions. The region already has the three record-breaking, low-cost auctions for solar energy supply in the world and has the potential to be a lead producer of green and blue hydrogen. This could position the GCC as a major producer of green energy and cement its status as an energy hub for the future. Using more renewable energy for domestic consumption will free up oil resources that can then be sold on international markets, thereby increasing exports and reducing budget (and deficit) spending.

With the right regulations, policies, and investments—many of which are already on their way or planned—to support the transition they can emerge with stronger, more sustainable economies that generate rewarding jobs for their youth while simultaneously protecting the planet.

### Green growth an exciting opportunity for the GCC...

In order to meet the Paris Climate Agreement target of an increase of 1.5°C warming, the world will have to move away from hydrocarbons towards more sustainable sources of energy. According to the United Nations, fossil fuels comprise 80 percent of current global primary energy supply and is the source of approximately two-thirds of



FIGURE 36 • GCC Countries Need to Raise Productivity to Improve Growth Rates

Source: Penn World Tables (10.0 edition).

global  $CO_2$  emissions. Those who would benefit from a transition to renewables vastly outnumber those who benefit from continuity. In fact, just 1 percent of the global workforce is employed by the fossil fuel industry. Governments directly or indirectly drive more than 70 percent of global energy investments—and

FIGURE 37 • Climate Finance Remains Below



Source: Climate Policy Initiative, 2021.

almost all energy investments in the GCC-and will therefore have to lead the transition in the region.

Green growth has the potential to increase productivity and growth rates: GCC countries have witnessed steady low relative growth over the past several decades. From the 1970's till the onset of the COVID pandemic, growth has averaged just 4 percent a year. Much of this growth is accounted for by growth in capital stock with a smaller contribution from labor (Figure 36). One startling fact of the growth history is that contribution from Total Factor Productivity (TFP) has been mostly negative throughout the GCC, which is a key reason why the region and individual countries have not been able to achieve higher growth rates.

Under a green growth transition, the region would need to focus policies on aggressively embracing green technologies and their associated skilled labor, which would reverse trends in TFP enabling the region to grow at between 7–10 percent annually.

Achieving the 1.5°C target embedded within the Paris Agreement will require investments in excess of US\$4 trillion per year. Current climate financing remains way below this target (see Figure 37) but has begun to increase rapidly

#### FIGURE 38 • ...but has Begun to Increase Rapidly with Global Focus on Climate Change...



Source: BloombergNEF, Bloomberg LP..



(Figure 38) with the impetus from COP 26 and increased global focus on climate change as the COVID-19 pandemic recedes.

The clean energy transition promises the creation of 85 million new jobs by 2030 with the bulk, close to 60 million, in energy efficiency, power grids, clean hydrogen, and energy flexibility, with the remaining 25 million jobs in renewables. By 2050 the total number of jobs created is estimated to be as high as 380 million, more than sufficient to offset the estimated 12 million jobs that will be lost in the fossil fuel industry. Meeting the human resource capacity needs will require scaling up of education and training programs and measures to build an inclusive and gender-balanced transition workforce (see the section *Green Skills and Human Capital*).

Global estimates of the impact on GDP are extremely positive. However, most of the benefits will accrue to countries that are able to put in place progressive policies and programs. The policies needed are those that support national policy goals on climate change, enhance the resilience of the financial sector, and increase the attractiveness of countries as investment destinations.

#### Positioning the GCC in emerging sectors...

#### A breakdown of the opportunities

This special focus section highlights the size of the addressable market for green growth focusing on the major sectors of the green economy: Renewable Energy, Green Buildings, Sustainable Transport, Water Management and Waste Management. In addition, this section covers Green Finance as the critical enabler for new investments. It will also cover the opportunity cost of not moving into renewables for electricity production. When more of the electricity is produced out of renewable the impact on the fiscal and balance of payment will be significant, coming from subsidy reduction and additional exports of fossil fuels that had previously been used to meet domestic demand.

In 2021, global energy transition-related investment was just shy of US\$1 trillion, a 21 percent increase from the year before (Figure 39). Renewable energy was still the largest sector attract-





Source: BNEF, 2022b; IEA, 2021c.

ing US\$366 billion (excluding large hydropower), up 77 percent from the previous year. Electrified transport saw the largest increase in 2021, with US\$273 billion invested in Electric Vehicles (EVs) and associated charging infrastructure, up 77 percent from 2020.

These investments, already quite significant, are forecast to ramp up rapidly in the coming decade and continue to grow steadily through 2050. The major benefits of this massive transition to low carbon energy will accrue to countries that can quickly position themselves through appropriate policy frameworks, investment funds, partnerships with the private sector and academia, and create changes in societies' values and practices.

### Clean electricity in the GCC will have the biggest impact on reducing GHG emissions

Globally the largest source of greenhouse gas (GHG) emissions is the electricity sector (25 percent), closely followed by Food and Land Use (24 percent) and Industry (21 percent), while transport is also important (14 percent). The GCC, however, has very little domestic agriculture; the dominance of the electricity sector is key (mostly related to domestic air conditioning) since it is responsible for 75 percent of GHG emissions in the region.





#### FIGURE 40 • Renewable Energy Now Cheaper than Fossil Fuels

Source: IRENA LCOE and PPA auction database prices, global weighted averages 2010-2022.

#### Renewable energy is now cheaper than that produced by fossil fuels

The main driver of increased renewable energy installation has been the dramatic fall in prices. Between 2010 and 2020 the global cost of Solar PV projects fell by 85 percent and concentrated solar projects (CSP) fell by 68 percent while the costs of onshore and offshore wind projects also fell by more than half. Commercially available solar and wind projects are now approximately 30 percent cheaper than the cheapest fossil fuel plants. In just the last two years, the costs of solar projects decreased by 30 percent (Figure 40). It is estimated that wind energy will form 24 percent of global energy supply by 2030.

### Improved battery technology is quickly solving the storage challenge

One of the former constraints to the faster adoption of renewables was its intermittency, the idea that renewable energy was not constantly generated requiring another source of energy for base load. This constraint is quickly being overcome by rapidly improving energy storage (especially battery) technology, whose price has fallen by 90 percent in the past decade.

#### GCC countries are moving rapidly in the direction of renewables

The six GCC states have published vision statements that guide their economic policies for the medium term to 2030, 2035, and 2040 respectively. The ambitious plans of each GCC state include pledges to decrease the use of fossil fuels to generate electricity. Each state aims to increase the capacity of renewable energy to power domestic electricity needs. Each state also aims to increase the role of the private sector and reduce the role of the public sector to a regulatory and policy function. Attracting private sector investment through a predictable policy and regulatory framework and transparent contracting along with an efficient judicial and arbitration process will be key to capitalizing on this opportunity in the coming years.





Source: IRENA Renewable Energy Statistics 2022 and World Bank Staff<sup>a</sup>.

26

<sup>a</sup> https://www.irena.org/publications/2022/Jul/Renewable-Energy-Statistics-2022 pp 18-19.

#### FIGURE 42 • GCC Wind Energy Capacity (2020-2021)



Source: IRENA Renewable Energy Statistics 2022 and World Bank Staff<sup>a</sup>. <sup>a</sup> https://www.irena.org/publications/2022/Jul/Renewable-Energy-Statistics-2022 pp 18–19.

Saudi Arabia is in the forefront of renewable energy in the Gulf with a commitment to achieve 50 percent renewable electricity by 2030. Weather conditions in the GCC favor solar energy more than anywhere else in the world.

### Clean Hydrogen will also be Important for a Greener Future

Electric power will not be able to replace all the current uses of hydrocarbons. For instance, electric batteries are still far too heavy to be used in long haul aircraft and are unlikely to be used to power trains. Increased attention has now been turning to clean hydrogen as it offers an emission free solution for industry and transport processes that are hard to decarbonize through direct electrification.

Enthusiasm for low-carbon hydrogen is reinforced by the continuously falling costs of renewable electricity generation—the main ingredient used to produce green hydrogen through electrolysis of water—and the falling costs of electrolyzers (the equipment needed to create hydrogen from water). In this context clean hydrogen is seen as useful component of future energy production, with a forecast 6–18 percent share in total final energy consumption by 2050 (IRENA 2019 and Hydrogen Council 2017).

#### Importance for the GCC and MENA region

Clean hydrogen provides an opportunity for the MENA region to reduce its dependence on fossil fuels

both as a source of income and as a domestic energy source. Favorable conditions for the development of clean hydrogen are available in the region, including enormous potential for scale-up of renewable energy capacity. The production of blue hydrogen (produced using fossil fuels in combination with carbon capture and storage) is viewed as a starting transition phase. It is a quick solution for emission reduction that paves the way for future green hydrogen capacity scaling. Although green hydrogen currently costs between 2–3 times more than blue hydrogen, falling prices and new technologies will make it competitive by 2030.

### The GCC is already well ahead in developing green and blue hydrogen projects.

Saudi Arabia announced its target to reach 50 percent of its energy mix from renewable energy in 2030. It is focusing on the adoption of a circular carbon economy (CCE) for a clean energy transition and announced a team to work on a strategy for hydrogen development. Saudi Arabia currently operates a blue hydrogen<sup>4</sup> project in Jubail, from which in 2020 they issued the world's first shipment (40 tons) of blue hydrogen-based ammonia to Japan to produce carbon-free electricity. It also has the



<sup>&</sup>lt;sup>4</sup> Blue hydrogen is an industry term for hydrogen produced from natural gas and supported by carbon capture and storage. The CO<sub>2</sub> generated during the manufacturing process is captured and stored permanently underground. The result is low-carbon hydrogen that produces no CO<sub>2</sub>.

world's largest green hydrogen project (US\$5 billion) under preparation in Neom.

In 2021, the UAE became the first country in the Middle East and North Africa (MENA) region to announce a net zero strategic initiative by 2050 in line with the 2015 Paris Agreement. UAE has announced the development of a hydrogen policy and is pursuing blue and green options. It is the only country in the GCC to have an installed green hydrogen pilot project at the MBR solar park in partnership with Siemens Energy, Dubai Electricity and Water Authority (DEWA) and Expo 2020 Dubai.

In December 2020, the Sultanate of Oman published its Vision 2040 strategy which includes a plan to diversify the national economy away from fossil fuels and increase investment in renewables. Green hydrogen will be vital to accelerate green energy transition. The announcement of the strategy was accompanied by an announcement of a private sector investment to establish one of the world's largest green hydrogen projects in Salalah's Free Zone, by 2030.

#### Developing Clean Hydrogen value chains

The next opportunity is to see what can be developed upstream—opportunities such as ammonia, methanol and cryogenic  $H_2$ . There may also be downstream possibilities to explore such as building the engine and electricity production for base loads, for instance the GCC railway system has long been planned and will be operational soon with potential further linkages to the Mashreq countries. Could GCC countries develop hydrogen based locomotive engines for use such as those recently introduced in Germany? And will the GCC be able to run their railway system using hydrogen, creating a demonstrating effect for the rest of the world?

#### Empowering the private sector through public sector resources: the UK's Catapult Program

GCC states have traditionally depended on the public sector to fund and operate large-scale projects. However, green growth will require unleashing and leveraging private sector resources. Establishing incubators and accelerators funded by the public sector or sovereign wealth funds will ensure collaboration between both sectors while minimizing the state's equity in green growth projects. The catapult program in the United Kingdom is a promising framework for GCC countries to replicate. It is a platform for applying research, developing emerging technologies, scaling up projects, and realizing the potential gains all without government ownership.<sup>5</sup> The big question that the GCC would need to answer is how to use their sovereign wealth funds to help create these industries where the private sector could bring investment and technology to develop them locally.

Saudi Arabia is already engaged with the UK on several areas. The GCC states could further this relationship by collaborating with OECD countries to create effective incubator and accelerator programs specifically for green growth. By reinforcing private sector development in the sectors of the green economy, GCC states will transform their future visions into reality and drive the achievement of their sustainable development goals. This could also help cement the GCC as a green power hub that could add green energy to its mix of exports.

The UK has designed its technology and innovation program through nine different catapults: Cell and gene therapy, connected places, compound semiconductor applications, digital, energy systems, high value manufacturing, medicines discovery, offshore renewable energy, and satellite applications. Catapults were only established where: global markets are predicted to reach billions of pounds per year; world-leading research capabilities readily available in the UK; local businesses could benefit from technologies and contribute to value chains; and capacity exists or can be developed to captivate knowledge-intensive activities of globally mobile companies, create sustainable wealth, all with proven alignment with national strategic priorities.<sup>6</sup>

#### **Carbon Capture and Storage**

Despite our best efforts, the world will not be able to entirely eliminate emissions by 2050 and

<sup>&</sup>lt;sup>5</sup> https://catapult.org.uk/.

<sup>&</sup>lt;sup>6</sup> https://assets.publishing.service.gov.uk/government /uploads/system/uploads/attachment\_data/file /975595/catapult-network-review-april-2021.pdf.

there will thus be a need for both carbon capture and storage (CCS) technologies and also CO, removal measures and technologies that, combined with long-term storage, can remove CO<sub>2</sub> from the atmosphere, resulting in negative emissions. Today CCS capacity is only 1 percent of the target amount needed by 2050. Globally, there are nearly 30 CCS projects under development, but together they will add only about 17-33 percent of what is needed to stick to a 1.5°C-consistent pathway. Much more research, innovation, and technology development are required in this area. The GCC countries are well positioned with their oil and gas research facilities and have an added incentive to make such investments since they could well prolong the life of their fossil-fuel economies. CO<sub>2</sub> removal measures and technologies include nature-based measures such as reforestation as well as bioenergy with carbon capture and storage, direct carbon capture and storage, and some other approaches that are currently experimental.

Carbon sequestration units would help capture process emissions in hard-to-abate sectors such as cement, iron, and steel. Pilot projects could be deployed at scale with selective use of CCS, in order to prove/test the technology and make it commercially available. Existing plants need to be retrofitted, whereas new plants must include CCS. Assuming a total production capacity of 2 million tons a year, about 11 existing cement plants would need to be retrofitted every year, while about 23 new plants would need to deploy CCS every year until 2050.

#### Sustainable transport

GCC countries reliance on private cars, lack of passenger rail, and limited urban public transport options along with subsidies for trucking and roads have led to an inefficient and environmentally costly transport system. This is starting to change with mass transit systems opened in Dubai and Doha and close to completion in Riyadh. Further progress can be made through a number of strategies outlined below:

**Transit oriented development (TOD) strategies**<sup>7</sup> can be applied around the burgeoning rail and bus-based public transport networks that are emerging in the region's cities, and in new planned cities such as Neom in Saudi Arabia. Numerous resources and guides exist to support TOD creation.<sup>8</sup>

**Travel demand management (TDM).** GCC countries could better utilize travel demand management techniques to influence how, how much, and when people travel within cities and freight movements are made. Common TDM techniques of relevance in GCC countries include the following: 1) Pricing parking at least at parity with or higher than the cost of a comparable public transport trip; 2) congestion pricing of roads to encourage use of high-occupancy vehicles; and 3) incentives or tax policy to encourage employers to provide incentives for their employees to use public transport or carpool.

**Motorization management.** GCC countries could better utilize tools and techniques of motorization management<sup>9</sup> to influence the kinds of motor vehicles people and firms acquire, how frequently they replace their vehicles to take advantage of improvements in the efficiency of vehicles available in the market, and what happens to the vehicles being replaced. The transition to electric vehicles will also be important.

#### Moving to electric vehicles in the GCC

Globally, the number of new electric passenger cars on the road will need to increase significantly from almost 7 million per year in 2021 to 147 million by 2050. This is an increase of 25 times from the current level, indicating urgent need to scale up manufacturing and deployment.<sup>10</sup> The massive deployment of smart charging points for electric vehicles (EVs) will be also needed in cities and along highways implying annual investments of around US\$86 billion per year. Electrification will also have to expand to meet this new



<sup>&</sup>lt;sup>7</sup> TOD is a planning and design strategy that focuses on creating urban development patterns which facilitate the use of public transit, walking and cycling, as primary modes of transport

<sup>&</sup>lt;sup>8</sup> https://openknowledge.worldbank.org/handle/10986 /34870.

<sup>&</sup>lt;sup>9</sup> Motorization management is a deliberate, diligent, and coordinated process to shape, through public policies and programs, the profile, quality, and to some degree, quantity and intensity of use of the motor vehicle stock as it progresses through a country's motorization process. <sup>10</sup> IRENA 2022.

demand. The stock of electric cars is expected to grow more than 20 times from 2021 to 2030, reaching more than 380 million EVs in that year.

As a result of increased policy attention, global EV sales increased around 41 percent during 2020, and the number of electric and plugin hybrid passenger cars on the road surpassed 18 million (REN21 2021). Electric charging infrastructure also saw a sharp increase in 2020, reaching 1.36 million, or 48 percent more than in 2019 (BNEF 2022a). The GCC countries can take advantage of this growth by promoting the EV industry, and investing in battery technology and charging stations that will in turn result in higher growth and job creation.

Technological progress—notably, the evolution of batteries—has greatly improved the economic case for EVs in recent years, and the scope of applications is quickly expanding to a broader set of road vehicle segments and types of services. If ongoing cost reduction trends consolidate, by 2050 the bulk of global road transport services could be delivered cost-effectively with electric technology.

Policies required to support the uptake of EVs include the development of the charging infrastructure, incentives to purchase EVs (in many European countries), bans on combustion engines (such as California's recent legislation to ban all petrol driven cars by 2030), and efforts to subject consumption to price signals by taxing petrol, and the pricing domestic consumption at international prices by oil exporters.

Saudi Arabia's venture into the electric vehicle (EV) industry by acquiring a large stake in Lucid Motors indicates high commitment to Saudi Arabia's nationally determined contributions. The agreement provides Lucid Motors \$3.4 billion in aggregate over the next fifteen years to build its first overseas advanced facility, currently under construction at the King Abdullah Economic City, with the capacity to produce 155,000 EVs per year locally.<sup>11</sup> These types of investments could be incentivized to create the whole ecosystem necessary for similar industries to grow.

#### Buildings and energy efficiency measures

It is estimated that at least 25 percent of the effort to reduce net carbon emissions to zero will come from energy efficiency measures. The building sector can play an important role in this transition. It is estimated that 40 million housing units per year will need to be upgraded with energy efficiency measures including more efficient heat pumps and improved insulation. The GCC can create their own program like the one the European Commission has announced to be a "renovation wave" as part of the European Green Deal. It will encompass both public and private buildings and aims to double energy renovation rates by 2030 by (i) tackling energy poverty and the worst performing buildings, (ii) renovating public buildings, and (iii) decarbonizing heating and cooling. The EU will focus on removing market barriers, investing in relevant R&D as well as direct investments, and leveraging private resources.<sup>12</sup>

In the GCC heavily subsidized utilities and unambitious voluntary building codes have resulted in a proliferation of energy inefficient building practices. It is estimated that the construction sector accounts for approximately 17 percent of GHG emissions in the GCC. Adopting best-practice building techniques can have a tremendous impact on global warming. Developers can make improvements in two areas: upstream construction and downstream operation through the use of sustainable practices such as lightweight facades and improved insultation. Some private sector developers have already started to adopt such practices. A good example of what is already possible and commercially viable is found in the Dubai Sustainability City.<sup>13</sup>

### Integrated waste management and recycling in the GCC

The GCC generally has one of the world's highest per capita of waste generation. Kuwait generates approximately 1.4–1.5 kg of waste per capita per day. The GCC also has high food waste at the household level. The most prevailing waste management practices

<sup>&</sup>lt;sup>11</sup> https://www.lucidmotors.com/media-room/lucid -advances-global-sustainability-vision.

<sup>&</sup>lt;sup>12</sup> https://energy.ec.europa.eu/topics/energy-efficiency /energy-efficient-buildings/renovation-wave\_en.

<sup>&</sup>lt;sup>13</sup> https://blogs.worldbank.org/arabvoices/sustainable -city-dubai-dream-reality.

in GCC is through landfills with no-gas capture and high leakages, which can cause adverse environmental and public health risks. All kind of waste, including municipal and industrial waste are dumped at landfill sites.

Governments in the GCC have highly ambitious plans to improve waste management but the plans need to focus on integrated waste management solutions which are the reduce, reuse, and recycling aspects of the circular economy. Waste reduction depends on awareness raising, and policy measures. For GCC to create green jobs in the waste management sector, more efforts are needed to promote waste reuse, which represents an important strategy that requires a proper assessment to ensure safe and environmental-friendly practices. Waste recycling, on the other hand, is a more strategic and quite profitable business. It has huge potential to generate huge and guick impacts with numerous benefits, including new green business opportunities for private sector development, poverty reduction through job creation, youth and women empowerment, environmental conservation, and health benefits.

Waste generated includes recyclables such as plastic, glass, wood, and metal. The international market for recyclable waste including PTE plastic is roughly 500 tonnes/month. There are many companies in the GCC recycling various kinds of waste, but the industry is not yet well-established due to lack of a waste recycling policies which would promote waste segregation at the source. There are also significant business opportunities for real waste recycling to create products for the local market, such as plastic chairs, rugs, storage containers and a wide variety of other items. There are primary recycling capacities, but low molding capacities. The molding process is costly, and electrical power needs accounts for the largest share of processing costs-therefore renewable energy represents an optimal and cost-effective energy solution. Waste recycling in the GCC can be scaled up through a suitable public-private partnership approach.

### Opportunity costs of not moving to renewables

The region holds 34 percent of the world's estimated crude reserves and is the leader in oil production and

supply. The demand for oil has proven to be crucial for the world economy and will continue to be threatened by its limited supply. Strategically investing in renewable energies to compensate for the costly local demand, will decrease the carbon footprint, and increase the amount of oil reserves owned by the Gulf states. Moreover, the rise in population over the next century will significantly impact the demand for energy. Moving to increased renewable energy for domestic electricity consumption has the potential to add 1–2 percent of GDP per year depending on future oil prices.

The upcoming energy transition requires the GCC to position itself strategically in order to meet announced NDCs, prepare for their future visions, contribute to decrease global warming, and create attractive sustainable sectors that generate income and employment and facilitate green growth. GCC countries can also take advantage of the Pan Arab Electricity Market that will link the region to the Mashreq and beyond by exporting cheap renewable energy throughout the MENA region and beyond.

The fluctuation of oil prices creates fiscal challenges for GCC states. When oil prices increase, government spending also increases, but when the price of oil decreases, governments begin implementing budget cuts, and the revenue generated from exports drops dramatically. Global trends have currently raised the price of oil to unprecedented levels, making it very inefficient to burn oil at subsidized prices to power local energy needs that could instead be traded internationally. Adjusting domestic prices would encourage greater energy efficiency and investments in renewable energy.

#### Green Finance

Achieving a global transition to a low carbon economy will require US\$4–6 trillion in annual climate related investments compared to the current level of under US\$1 trillion. Most of this additional investment is expected to come from the private sector, especially since many economies have limited fiscal space following significant expenditures to support social objectives during the pandemic, and now to cover vulnerable populations in the wake



of the war in Ukraine and the resulting food and fuel price increases. The GCC countries are in a different position since they are benefiting from a significant windfall due to higher global energy prices and many have sizeable sovereign wealth funds that can kickstart investments in key areas. However, given the size of the investments needed, private sector financial flows will be key not only because they can leverage public sector investments but crucially because many will come with cutting edge technology that might not be available within the GCC.

There are various opportunities to scale up private climate finance beyond generally improving the investment environment in the GCC. It is important that GCC governments and sovereign wealth funds play a role in crowding in private sector investments and putting more emphasis on equity rather than debt financing. Directing investment policies of these funds towards high green-growth industries could have a major positive financial and climate returns for the GCC. Establishment of incubator and accelerator networks need to be supplemented by a complementary financing ecosystem that supports energy entrepreneurs through the life cycle: mostly grants during the formative stages but a suitable mix of debt and equity during the acceleration and growth stages. Innovative types of structured finance and outcome-based financial instruments will need to be deployed on a larger scale and improved where necessary.<sup>14</sup> Impact funds that measures performance on risk, return, and impact will have a particular role, as will specific instruments for risk finance.

National regulators and policy makers will have an important role to play. Regulators can set a national roadmap for climate finance, build internal capacity, and issue supervisory guidelines including climate risk assessments and taxonomies, and disclosure requirements for green investments.

One reason why the climate finance gap remains large is the lack of investable projects. Observers note the bottlenecks in project preparation and development, deficiencies in policy and regulatory frameworks, and weak institutional capacity (related to contract enforcement, property rights, and management of fiscal risks and public investment). These issues make it hard to manage the long-term investments needed in sustainable infrastructure. As such, they are no different than the issues facing grey infrastructure development but addressing them now becomes all the more important and requires accelerating the various regional programs to streamline the investment climate.

Sovereign issuers have been latecomers to the issuance of sustainable debt often following the private sector by several years, but they can still have a positive effect on private markets. Sovereign issuance has had a positive impact on private issuance, emphasizing the impetus to market development that a sovereign can provide. All 39 sovereign issuers to date have detailed issuance frameworks setting high standards. For green bonds, for instance, all sovereign green bond issuance frameworks require at least one second-party opinion (which certifies the use of proceeds for green projects) and impact reports (which document the environmental impact).

#### Green Skills and Human Capital

This section examines the skills that will be needed to successfully position youth for the green jobs of tomorrow and the implications for the education system, industrial policy, and the diversification agenda.

### Developing green skills in a rapidly transforming economy

The GCC economics are facing two concurrent trends. First, due to their young populations, job creation, especially for the well-educated whose proportion among the unemployed youth is growing, remains a constant and pressing challenge—a challenge that has been exacerbated by COVID-19. Second, the GCC region has increased its investments in sustainable initiatives such as renewable energy, energy efficiency, public transport and cleaner vehicles, and green building and eco-cities.

32

<sup>&</sup>lt;sup>14</sup> IMF 2022.

As the industries in the GCC shift toward greener production methods, products, and services, the demand for 'green jobs' will grow rapidly. If the GCC region were to progress towards its renewable energy targets an average of 135,000 direct jobs could be created annually (IRENA 2019). Based on current green reform initiatives, most of these jobs would be concentrated in the UAE and Saudi Arabia, given their significant deployment plans (IRENA 2019).Together, solar technologies—both CSP and solar PV (small and large)—would account for 89 percent of these renewable energy jobs expected in 2030 (Figure 43).

Leveraging the promise of employment opportunities inherent in a green transition will be heavily dependent on the availability of relevant 'green' skills (International Labour Office 2019). Green skills refer to the knowledge, abilities, values, and attitudes needed to live in, develop, and support a sustainable and resource-efficient society. Such skills are crucial building blocks of any green transition to a low-carbon, resource-efficient economy. This is because green transition requires systematic changes in products, services, production process and business models, as well as the tasks involved in many of the existing occupations, which have profound implications for future occupations and their demanded skills.

The GCC region can attract skilled labor from outside but now has the unique opportunity





Source: IRENA calculations.

to strengthen human capital from within the GCC, equipping its people with the skills needed for the economies and jobs of tomorrow while ensuring the industrial and systems reforms needed for the development of such skills are in place.

#### Which Green Skills are needed?

It is estimated that green skills will be needed by all sectors and at all levels in the workforce in future (Cedefop 2012). While green increased demand occupations such as electrical power line installers working on infrastructure upgrades for better efficiency will not require significant change of skills profiles (Sofroniou and Anderson 2021), green enhanced skills occupations such as architects who are expected to design greener buildings, will require alteration to their skill profiles. For completely new skills profiles, qualifications and training frameworks will be needed for new emerging green occupations, such as wind turbine technicians. The GCC thus has an opportunity for upskilling and reskilling its existing workforce, and to develop entirely new skills for the emerging new occupations created by its green transition.

As the impact of the green transition on occupations and work tasks have started to be felt by relevant industries, a combination of hard and soft skills will be needed. Workers need the hard skills, the job-related knowledge and abilities that employees need to perform their job duties effectively, such as 1) engineering and technical skills (know-how); 2) science skills (essential for innovation); 3) operation management skills (change management and business processes); and 4) monitoring skills (technical and legal standards) (Vona et al. 2015). Workers will also need soft skills such as environmental awareness, analytical competency, teamwork, innovation, communications, leadership, negotiation abilities, and management and entrepreneurship skills (ILO 2019).

Both specialized and less specialized skills will be needed to meet the demands of the green economy. While no data exists specifically for the GCC, a recent study conducted by LinkedIn (LinkedIn n.d.), found that the top five fastest growing green jobs globally between 2016 and 2021, in terms of annual growth, were specialized jobs such as Sustainability Manager (30 percent), Wind Turbine Technician (24 percent), Solar Consultant (23 percent), Ecologist (22 percent), and Environmental Health and Safety Specialist (20 percent). Most green jobs however are less specialized and are found in a variety of sectors, including roles that range from compliance manager, to facilities manager, to technical sales representative.

The demand for green skills is expected to quickly outpace the supply of skills, both globally and in the GCC region. Among the GCC countries such as Saudi Arabia and the United Arab Emirates (UAE), for example, green skills intensity is already above the global average in sectors such as construction, energy & mining, public safety, and software & IT services, but is below the global average in sectors such as agriculture, corporate services, transportation & logistics, real estate, and education (LinkedIn n.d.).

To ensure a smooth green transition in the GCC, policies and systems are needed to influence the supply of qualified and skilled workers. The GCC region has an opportunity to achieve this through intervention in three main areas: 1) human resources development of GCC nationals; 2) labor mobility and migration policies for expats; and 3) education and skills development policies. Overall, the increased need for skilled labor will require the GCC to step up efforts in its diversification agenda.

Implications for the economic diversification agenda: The GCC countries are in the process of shifting their economies away from single income sources towards multiple sources from a growing range of sectors and markets. The increased need for skilled labor requires the GCC to step up its efforts particularly in three fronts: 1) floating incentives to encourage nationals to work in the private sector and ensure that education systems across the GCC match private sector and labor market needs; 2) accelerating the shift to a knowledge-based economy as part of the diversification strategy, inspiring the GCC population to pursue studies in key areas, including STEM sciences, and green sciences; and 3) drawing upon the large youth bulge and women by increasing opportunities and reducing inequalities as part of the diversification process and efforts to increase the pool of skilled labor and human capital formation in the GCC.

#### Towards a roadmap on green skills production

A whole-of-government approach, an integrated approach to education, labor, and social policies for the next 5–15 years, will be critical to increase the supply of labor with the skills needed to meet the expected growth in green jobs in the near future. This could include:

- Developing a common taxonomy of green skills, collecting new data, and quantifying future jobs, skills, and training needed for the GCC;
- Developing a green skills development strategy for the GCC;
- Critically, strengthening partnerships with the private sector and capitalizing on GCCs youth and women;
- Ensuring a comprehensive and integrated approach to education and labor policies; and
- Ensuring alignment among government, industries, and training providers.



## BIBLIOGRAPHY

- Abdallah, Nayera. 2021. Bahrain aims to reach net zero carbon emissions in 2060 – BNA. Reuters. https://www.reuters.com/business /cop/bahrain-aims-reach-net-zero-carbon -emissions-2060-bna-2021-10-24/.
- Blazquez, J., L. Hunt, B. Manzano and A. Pierru. 2019.
  "The Value of Saving Oil in Saudi Arabia." *Economics of Energy & Environmental Policy*, vol. 0(Number 1), pages 207–222.
- Cedefop. 2012. Green Skills and Environmental Awareness in Vocational Education and Training. LU: Publications Office of the European Union. https://data.europa.eu/doi/10.2801/78825 (October 1, 2022).
- Daniel Wetzel. 2019. "How Pursuing Net Zero by 2050 Will Reshape Energy Employment." Presented at the International Energy Agency.
- Google. 2022. COVID-19 Community Mobility Reports. https://www.google.com/covid19/mobility/.
- Gross, S. 2020. The Challenge of Decarbonizing Heavy Transport. Brookings Foreign Policy. Washington, DC, Brookings Institution.
- Hilal M.S. Al-Maamary, Hussein A. Kazem, Miqdam T. Chaichan. 2017. The impact of oil price fluctuations on common renewable energies

in GCC countries, *Renewable and Sustainable Energy Reviews*, Volume 75, Pages 989–1007, ISSN 1364-0321, https://doi.org/10.1016/j.rser.2016.11.079.

HIS Markit Purchasing Manager's Survey. 2022. IMF. 2022. IMF Article IV, 2021. UAE.

- International Labour Office. 2019. *Skills for a Greener Future: A Global View Based on 32 Country Studies*. Geneva: ILO. https://www.ilo.org/wcmsp5/groups/public/---ed\_emp/documents/publication/wcms\_732214.pdf.
- IRENA. 2019. Renewable Energy Market Analysis: GCC 2019. Abu Dhabi. https://www.irena.org /publications/2019/Jan/Renewable-Energy -Market-Analysis-GCC-2019 (October 1, 2022).
- International Renewable Energy Agency. 2022. Renewable Energy Statistics 2022 (July). https://www.irena.org/publications/2022/Jul /Renewable-Energy-Statistics-2022.
- LinkedIn. *Global Green Skills Report 2022*. LinkedIn Corporation. https://economicgraph.linkedin .com/research/global-green-skills-report (October 1, 2022).
- Lucid Motors. (2022 May 18). Lucid Advances Global Sustainability Vision, Announcing New Details

for First Overseas Manufacturing Facility with Partners in Saudi Arabia. Press Release. https://www.lucidmotors.com/media-room /lucid-advances-global-sustainability-vision.

- OPEC. 2022. Monthly Oil Reports, Jan-Aug 2022. Vienna: OPEC Secretariat.
- R.P. Praveen, Vishnu Keloth, Ahmed G. Abo-Khalil, Ali S. Alghamdi, Ali M. Eltamaly, Iskander Tlili. 2020. An insight to the energy policy of GCC countries to meet renewable energy targets of 2030, *Energy Policy*, Volume 147, 111864, ISSN 0301-4215, https://doi.org/10.1016 /j.enpol.2020.111864.
- Sofroniou, Nick, and Pauline Anderson. 2021. "The Green Factor: Unpacking Green Job Growth." *International Labour Review* 160(1): 21–41. https://onlinelibrary.wiley.com/doi/abs/10.1111 /ilr.12176 (October 1, 2022).
- State of Qatar. 2021 Aug. Nationally Determined Contributions. Ministry of Municipality and Environment http://extwprlegs1.fao.org/docs /pdf/qat206235.pdf.
- State of Oman. 2021 July. Second Nationally Determined Contribution. Civil Aviation Authority.
- Oman Vision 2040. https://unfccc.int/sites/default /files/NDC/2022-06/Second%20NDC%20 Report%20Oman.pdf

- State of Kuwait. 2021 Oct. Nationally Determined Contributions, Updated Version. Public Authority for Environment. New Kuwait. https:// unfccc.int/sites/default/files/NDC/202206 /Kuwait%20updating%20the%20first%20NDC -arabic.pdf.
- UAE Greens Jobs Program. 2019. Jobs & Skills for the UAE's *Green Economy Transformation*. Ministry of Climate Change & Enviroment. https://mbrsgcdn.azureedge.net/cmsstorage /mbrsg/files/63/63c35146-4910-42ad-baaa -f948b5483b13.pdf (October 1, 2022).
- UNIDO "What Are Green Skills? |." https://www.unido .org/stories/what-are-green-skills (October 1, 2022).
- Vona, Francesco, Giovanni Marin, Davide Consoli, and David Popp. 2015. "Green Skills." https:// www.nber.org/papers/w21116 (October 1, 2022).
- World Bank 2022, World Development Indicators.
- World Bank 2022. Commodity Markets Outlook, October. Washington, DC: World Bank.
- World Bank. 2022. Global Economic Prospects, Jan and Jun 2022. Washington, DC: World Bank.
- World Bank. 2022. Macro Poverty Outlook Fall 2022. Washington, DC: World Bank.



## ANNEX 1 SUMMARY STATISTICS TABLE

GCC Selected Economic Indicators	2018	2019	2020	2021	2022	2023
GCC, Real GDP at Market Price, % growth	1.9	1.1	-4.9	2.9	6.8	3.7
GCC, Private Consumption, Contr to Growth %	1.3	2.0	-3.1	2.7	1.5	1.3
GCC, Govt. Consumption, Contr to Growth %	0.6	0.2	0.6	0.1	0.4	0.3
GCC, Fixed Investment, Contr to Growth %	0.2	-0.1	-1.4	1.7	1.7	1.5
GCC, Net Exports, Contr to Growth %	1.5	-1.3	-0.2	-0.2	2.2	0.5
GCC, Current Account Balance, %GDP	8.4	5.6	-1.0	7.9	17.2	14.6
GCC, Fiscal Balance, %GDP	-3.1	-3.4	-10.8	-2.2	5.3	4.2

## ANNEX 2 COUNTRY SUMMARY TABLES

#### **Key Economic Indicators**

#### **Country Summary Tables**

#### BAHRAIN

SELECTED ECONOMIC INDICATORS	2018	2019	2020	2021	2022E	2023F
Nominal GDP, US\$, billions	38	39	35	39	44	45
Real GDP, % change	2.1	2.2	-4.9	2.2	3.8	3.2
Hydrocarbon	-1.3	2.2	-0.1	-0.3	0.5	0.1
Non-hydrocarbon	2.4	2.2	-6.0	2.8	4.2	3.6
CPI Inflation Rate, average, %	2.1	1.0	-2.3	-0.6	3.4	2.6
Government Revenues, % GDP	21.8	23.7	18.5	21.1	25.3	22.5
Government Expenditures, % GDP	33.6	32.7	36.1	32.4	28.8	27.3
Fiscal Balance, % GDP	-11.8	-9.0	-17.7	-11.3	-3.5	-4.7
General Government Gross Debt, % GDP	93.9	101.9	129.2	128.2	116.4	117.3
Merchandise Exports, % nominal change	16.2	0.4	-22.4	59.0	34.1	-5.7
Merchandise Imports, % nominal change	18.9	-9.7	-17.8	23.1	26.0	-1.4
Current Account, % GDP	-6.4	-2.1	-9.3	6.7	11.3	7.5

Source: World Bank, Macro Poverty Outlook, Fall 2022.

#### KUWAIT

SELECTED ECONOMIC INDICATORS	2018	2019	2020	2021	2022E	2023F
Nominal GDP, US\$, billions	138	137	107	133	184	173
Real GDP, % change	2.4	-0.6	-8.9	1.3	8.5	2.5
Hydrocarbon	-3.8	-1.0	-9.5	-0.6	13.4	1.5
Non-hydrocarbon	7.0	-0.3	-8.4	3.5	7.7	2.5
CPI Inflation Rate, average, %	0.6	1.1	2.1	3.4	4.0	2.5
Government Revenues, % GDP	49.3	44.0	30.3	39.0	48.0	44.9
Government Expenditures, % GDP	52.4	55.1	61.5	48.6	46.9	45.4
Fiscal Balance, % GDP	-3.1	-11.1	-31.2	-9.6	1.1	-0.5
General Government Gross Debt, % GDP	14.9	11	11.7	8.7	7.1	6.9
Merchandise Exports, % nominal change	31	-11	-37	61	61	-10
Merchandise Imports, % nominal change	5	-12	-10	22	35	-2
Current Account, % GDP	14.4	12.5	3.2	16.4	28.6	23.6

Source: World Bank, Macro Poverty Outlook, Fall 2022.

#### OMAN

40

SELECTED ECONOMIC INDICATORS	2018	2019	2020	2021	2022E	2023F
Nominal GDP, US\$, billions	92	88	74	86	107	107
Real GDP, % change	1.3	-1.1	-3.2	3.0	4.5	3.9
Hydrocarbon	1.2	-1.5	-0.9	3.7	8.5	6.4
Non-hydrocarbon	0.8	-0.9	-4.5	1.8	2.6	2.6
CPI Inflation Rate, average, %	0.9	0.1	-0.9	1.5	3.2	1.8
Government Revenues, % GDP	31.6	34.4	30.2	34.7	37.7	34.8
Government Expenditures, % GDP	38.3	39.4	46.6	37.9	32.0	32.4
Fiscal Balance, % GDP	-6.7	-5.0	-16.4	-3.3	5.7	2.4
General Government Gross debt, % GDP	48.0	53.3	71.0	63.2	47.0	43.4
Merchandise Exports, % nominal change	26.9	-7.3	-21.2	45.2	44.5	-7.5
Merchandise Imports, % nominal change	-2.0	-13.5	-7.7	48.2	7.9	1.0
Current Account, % GDP	-4.7	-4.8	-11.7	-6.0	6.4	3.8

Source: World Bank, Macro Poverty Outlook, Fall 2022.



#### QATAR

SELECTED ECONOMIC INDICATORS	2018	2019	2020	2021	2022E	2023F
Nominal GDP, US\$, billions	183	176	157	167	199	215
Real GDP, % change	1.2	0.8	-3.6	1.5	4.0	3.4
Hydrocarbon	-0.3	-1.8	-2.1	-0.3	1.0	1.5
Non-hydrocarbon	2.2	2.4	-4.6	2.7	5.8	4.5
CPI Inflation Rate, average, %	0.1	-0.7	-2.7	2.3	4.6	4.0
Government Revenues, % GDP	31.2	33.6	32.6	29.6	36.4	38.2
Government Expenditures, % GDP	28.9	32.5	34.7	29.4	30.4	31.2
Fiscal Balance, % GDP	2.3	1.0	-2.1	0.2	6.0	7.0
General Government Gross Debt, % GDP	49.8	57.0	62.7	58.0	48.2	39.5
Merchandise Exports, % nominal change	24.9	-13.5	-26.8	34.1	7.3	3.1
Merchandise Imports, % nominal change	8.3	-5.9	-17.4	16.2	18.4	-12.5
Current Account, % GDP	9.1	2.4	-2.5	14.6	20.1	16.2

Source: World Bank, Macro Poverty Outlook, Fall 2022.

#### SAUDI ARABIA

SELECTED ECONOMIC INDICATORS	2018	2019	2020	2021	2022E	2023F
Nominal GDP, US\$, billions	787	767	685	841	1009	1006
Real GDP, % change	2.4	0.3	-4.1	3.2	8.3	3.7
Hydrocarbon	0.0	-1.3	-6.6	0.2	15.5	3.8
Non-hydrocarbon	4.2	1.3	-2.6	5.0	4.3	3.6
CPI Inflation Rate, average, %	2.5	-1.2	3.4	3.1	2.5	2.5
Government Revenues, % GDP	31	32	30	31	34	32
Government Expenditures, % GDP	37	37	42	33	27	28
Fiscal Balance, % GDP	-5.9	-4.6	-11.5	-2.4	6.8	4.5
General Government Gross Debt, % GDP	19	23	34	31	24	24
Merchandise Exports, % nominal change	32	-11	-34	59	58	-2
Merchandise Imports, % nominal change	10	7	-10	11	13	9
Current Account, % GDP	9.0	5.0	-3.3	5.3	18.8	15.6

Source: World Bank, Macro Poverty Outlook, Fall 2022.

41

#### UNITED ARAB EMIRATES

SELECTED ECONOMIC INDICATORS	2018	2019	2020	2021	2022E	2023F
Nominal GDP, US\$, billions	422	417	359	466	498	499
Real GDP, % change	1.2	3.4	-6.1	3.5	5.9	4.1
Hydrocarbon	2.5	2.6	-6.0	-1.9	9.2	2.7
Non-hydrocarbon	0.7	3.8	-6.2	5.7	4.6	4.7
CPI Inflation Rate, average, %	3.1	-1.9	-2.1	0.2	4.0	2.8
Government Revenues, % GDP	31.3	30.8	28.1	31.1	33.8	34.5
Government Expenditures, % GDP	30.1	30.4	33.3	30.8	29.4	29.5
Fiscal Balance, % GDP	1.2	0.4	-5.2	0.3	4.4	5.0
Merchandise Exports, % nominal change	2.4	-2.3	-13.0	14.7	21.1	0.9
Merchandise Imports, % nominal change	-4.4	-0.9	-9.7	8.0	8.0	8.0
Current Account, % GDP	9.3	8.9	5.9	10.5	11.2	11.9

Source: World Bank, Macro Poverty Outlook, Fall 2022.



