YEMEN ECONOMIC MONITOR

Clearing Skies Over Yemen?

Spring 2022

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

Yemen Economic Monitor

Clearing Skies Over Yemen?

Spring 2022

Middle East and North Africa Region

1818 H Street NW
Washington DC 20433
Telephone: 202-473-1000
Internet: www.worldbank.org

All queries should be addressed to the lead author, at: gmele@worldbank.org.

Cover photos courtesy of:
(top) *Yemen landscape of Somara mountain in Ibb City*. Credit: MhmdArt / Shutterstock
(center, left) *Architecture in Yemen*. Credit: Mohannad Khatib / Shutterstock
(center, right) *Panorama of Sanaa, Yemen*. Credit: Javarman / Shutterstock
(top) *Aerial view of Thula, Yemen*. Traditional houses and mosques. Credit: MhmdArt / Shutterstock
Further permission required for reuse.

Publication design and layout by The Word Express, Inc.

TABLE OF CONTENTS

List of Figures

List of Tables

List of Maps

ACRONYMS

CCRT	Catastrophe Containment and Relief Trust
DSSI	Debt-Service Suspension Initiative
FX	Foreign Exchange
GCC	Gulf Cooperation Countries
GDP	Gross Domestic Product
GOY	Government of Yemen`
IMF	International Monetary Fund
PP	Percentage Points
SDR	Special Drawing Right
UN	United Nations
USD	United States Dollar
YER	Yemeni Rial

OBJECTIVE & ACKNOWLEDGEMENTS

The World Bank Yemen team is pleased to announce the launch of the first issue of the *Yemen Economic Monitor (YEM)*, which is expected to be a regular publication (Spring and Fall) prepared by the Macroeconomics, Trade and Investment (MTI) Global Practice of the Middle East and North Africa (MENA) Region. The Yemen Economic Monitors (YEMs) will consist of two chapters: the first one provides an update on recent economic developments and an outlook assessment, and the second chapter focuses on a special topic of relevance to the country's economic development.

The YEMs are part of the World Bank's agenda to devote particular attention to Fragile Conflict, and Violence contexts (FCV), where poverty is rapidly growing, and hard-won development gains are retreating fast. FCV countries are projected to account for roughly two-thirds of the world's extreme poor by 2030.[1] Economic monitoring in FCV settings, especially in longstanding and active conflicts, presents specific challenges beyond non-FCV settings. Weak and basic data systems represent a core FCV-specific challenge: data is often no longer available in FCV context, or it is available with significant lags (also spanning several years), or the reliability of the data is highly disputable as warring parties can use the information as an instrument of propaganda. Notwithstanding these constraints, the advent of big data and the cross-checking of different information sources make reasonable economic monitoring possible in FCV settings, particularly in Yemen.

This first issue of the *Yemen Economic Monitor* was prepared by a World Bank team led by Gianluca Mele (Senior Economist), including: Mohammad Al-Akkaoui (Economist), Saki Kumagai (Governance Specialist), Geoff Handley (Sr. Public Sector Management Specialist) and Fiona Davies (Public Sector Economist). The research and analysis presented in this report were informed by the inputs, feedback and technical advice of numerous other colleagues. The team is grateful to Marina Wes (Country Director), Eric Le Borgne (Practice Manager) and Tania Meyer (Country Manager), who supported and guided this process through their counsel and depth of experience. Special thanks go to Ali Ibrahim Almelhem (Remote sensing/Economic Analyst) and Naji Mohamad Abou Hamde (Macroeconomic

[1] Source: World Bank; https://www.worldbank.org/en/topic/fragilityconflictviolence, overview.

Analyst) for their unstinting efforts and contributions to the analysis and the graphical and tabular supports. Wholehearted thanks go to Mark Ahern (Lead Economist and Program Leader), Sharad Tandon (Senior Economist) for the much-valued inputs and cooperation, and to Omar Al-Aqel (Operations Officer) and Sascha Buetzer (Economist, IMF) for their advice and peer-review support and regular exchanges of views. Sean Lothrop (Senior Economic Editor) deserves recognition for his always invaluable assistance in editing the final draft of the report. Many thanks to Katia Georgieva Stefanova (Senior Program Assistant) for her firm oversight and facilitation of the administrative processes. Last but not least, the team is grateful to The Word Express, Salem Massalha, and Shehab El-Dien (design, communication, and videography experts) for their impeccable work on the formatting, design and video/infographic contents related to the dissemination of this report.

This report focuses on the events until April 10, 2022, and acknowledges the rapid evolution of significant developments in the first weeks of April 2022. The medium-term outlook remains highly uncertain, and the most recent developments will be the subject of and will be discussed in more depth in the next issue of the Economic Monitor on Yemen.

At the beginning of April, 2022, several important geo-political and economic developments took place that are highly likely to alter Yemen's prospects. *The Government's financial position came out significantly strengthened, following a joint announcement by the Kingdom of Saudi Arabia and the United Arab Emirates of a US$3 billion package in favor of Yemen. In parallel, the transfer of power from former-President Hadi to an 8-members Presidential Council came only a few days after a Yemeni-Yemeni consultations, organized by the GCC in Riyadh* (which was not attended by Ansarullah, *de facto* authority in the Northern part of Yemen)*, and a 2-month truce agreement was announced on April 2nd.*

The council is backed by a broad governance structure that facilitates its tasks. Moreover, it is supported by:

a. **Advisory and Reconciliation Authority.** Composed of 50 politicians from different political backgrounds. The declaration said the 50-strong body would work to support the presidential council and unify national efforts to end the infighting among national forces and reach peace.

b. **Economic team.** Tasked with supporting government reforms, advising the government and the CBY on urgently needed economic and monetary reforms, and promoting transparency.

c. **Legal team.** Responsible for drafting regulations to govern the work of the Presidential Council, the Advisory and Reconciliation Authority, the Legal Team and the Economy Team. Regulations should be referred to the Council's Chairman within 45 days to be legislated.

EXECUTIVE SUMMARY

After seven devastating years of war, Yemen faces a profound economic crisis, while mounting fiscal and monetary challenges threaten the government's ability to sustain vital public services. Following a brief and very modest expansion in 2018 and 2019 (reflecting a pick-up in the oil industry after an almost complete stop in 2015-16), Yemen's economic output resumed its multi-year decline in 2020. Annual GDP is projected to have declined by a further 2 percent in 2021 and has now fallen to roughly half its pre-conflict level. In addition to endemic violence and insecurity, multiple domestic and external shocks are driving the renewed contraction, including widespread flooding, weather events, the ongoing economic repercussions of the COVID-19 pandemic, and the war in Ukraine, which has driven global food prices to record highs.

Soaring food prices, further exacerbated by the war in Ukraine, have a major impact on Yemen's economy and—dramatically—on an already dire food crisis. Yemen is a net food importer, and rising prices have been adversely affecting the external balances, inflation, and international reserves, which are currently estimated at barely one month of imports. Most dramatically, these dynamics have kept worsening an already dire food crisis. Moreover, the war in Ukraine has led to an additional spike in the price of critical imports for Yemen. Wheat is the country's second-largest imported good after fuel, and almost half of all Yemen's wheat imports come from Russia and Ukraine. Over the past year alone, currency depreciation contributed to a 20-30 percent increase in domestic food prices, and shocks to the global grain market could strain the budgets of humanitarian importers, further weakening food security.

While the rising cost of fuel imports threatens to further slow economic activity, higher global energy commodity prices could bolster the IRG's fiscal position. Yemen's extractive sector could also attract renewed attention from international firms if sanctions on Russian oil exports push them to diversify their sourcing, although violence and insecurity could continue to limit the country's participation in global energy markets.

As the conflict has dragged on, the Yemeni economy has developed more and more into a de facto dual economy, split between the IRG-controlled and DFA-controlled areas. With revenues falling far short of expenditure needs, in 2021, the IRG continued to monetize its fiscal deficit, severely eroding the purchasing power of the Yemeni rial. After years of fiscal deficit monetization, the IRG has passed the point at which the short-term benefits offset the adverse effects on inflation and exchange-rate dynamics. As a result, in 2021, high inflation caused public spending to contract in real terms even as it expanded in nominal terms. However, recent developments have bolstered the credibility of IRG monetary policy. The introduction of a foreign-exchange auction mechanism at the central bank in mid-November 2021, combined with the appointment of new central-bank management in December 2021, helped stabilize the exchange rate, which closed the year at YER 952 per US dollar, after peaking at roughly YER 1,725 per US dollar only a few days earlier, during the same month (on December 2nd). Meanwhile, de facto authorities (DFA) in Sanaa manage its fiscal policy strictly on a cash basis, which has kept inflation in DFA-controlled areas low and stable.

At the beginning of April 2022, several important developments have potentially altered the prospects of Yemen going forward. First, the IRG's financial position will be significantly strengthened following the announcement (by the Kingdom of Saudi Arabia and the United Arab Emirates) of a US$3 billion package. Second, the transfer of power from former-President Hadi to an 8-members Presidential Council solidified different groups and identities living in the IRG-controlled areas. These important developments came only a few days after a Yemeni-Yemeni talk organized by the GCC in Riyadh and a 2-month truce agreement announced by the UN on April 2. A committee of Reconciliation was also formed to help the Presidential Council negotiate a path of reconciliation with DFA authorities. While further details on the terms and timeline of the financial package are not fully known at present, the economic impacts are very significant. The Yemeni Rial (YER) appreciated both in Aden and Sanaa shortly after the announcements were made at the beginning of April 2022. Despite continued volatility, this trend is predicted to help reduce consumer prices in local markets, which represents an upside risk to the ongoing, daunting food security crisis.

While a modest rebound in the GDP growth rate is expected in 2022, Yemen's economic prospects heavily depend on the evolution of the conflict and overall security conditions on the ground. On the downside, episodes of hostilities coupled with persistently high import prices could further undermine conditions for the private sector. On the upside, renewed hopes for peace, the KSA and UAE's large financial package, rising remittances, and the potential for increased hydrocarbon exports could accelerate growth over the medium term.

ملخص تنفيذي

بعد مرور سبع سنوات من الحرب الأهلية المدمرة، أصبح اليمن يواجه أزمة اقتصادية حادة في وقت تهدد فيه التحديات المالية والنقدية المتزايدة قدرة الحكومة على الاستمرار في تقديم الخدمات العامة الحيوية. على الرغم من أن الناتج الاقتصادي اليمني كان قد شهد توسعاً قصيراً ومتواضعاً للغاية خلال عامي 2018 و2019، إلا أنه واصل تراجعه والذي استمر لعدة سنوات في عام 2020. كما أنه من المتوقع أن الناتج المحلي الإجمالي السنوي كان قد أنخفض بنسبة 2 في المئة خلال عام 2021، وأنه الآن قد انخفض إلى ما يقرب من نصف مستواه في فترة ما قبل الصراع. بالإضافة إلى استشراء العنف وتزايد مستويات انعدام الأمن، أدت العديد من العوامل والصدمات المحلية والخارجية المتعددة إلى تجدد الانكماش الاقتصادي، وقد تضمنت تلك العوامل والصدمات فيضانات واسعة النطاق، والظواهر المناخية، والتداعيات الاقتصادية المستمرة لجائحة كورونا، والحرب في أوكرانيا التي تسببت في ارتفاعات قياسية في أسعار الغذاء العالمية.

يستمر ارتفاع أسعار المواد الغذائية بالتأثير على الاقتصاد اليمني تأثيراً كبيراً وعلى أزمة الغذاء الحادة بالأساس. اليمن هو مستورد صافٍ للغذاء، وقد أثر ارتفاع أسعار المواد الغذائية على الميزان الخارجي، والتضخم، والاحتياطيات بالعملات الصعبة، والتي تقدر حاليًا بنحو ما يكفي لشهر واحد من الواردات. واستمرت هذه الديناميكيات بشكل أكبر في مفاقمة أزمة الغذاء الحادة بالأساس. فضلاً عن ذلك، أدت الحرب في أوكرانيا إلى ارتفاع إضافي في أسعار الواردات الأساسية لليمن. فالقمح هو ثاني أكبر سلعة مستوردة في البلاد بعد الوقود، ويأتي ما يقرب من نصف واردات اليمن من القمح من كل من روسيا وأوكرانيا. خلال العام الماضي وحده، ساهم انخفاض قيمة العملة في زيادة أسعار المواد الغذائية المحلية بنسبة تتراوح بين 20 و30 في المئة، ويمكن أن تؤدي الصدمات التي تعرض لها سوق الحبوب العالمي إلى إجهاد ميزانيات مستوردي المساعدات الإنسانية، مما يفاقم من ضعف الأمن الغذائي.

في حين أن ارتفاع تكلفة واردات الوقود يهدد بمزيد من تباطؤ النشاط الاقتصادي، إلا أن ارتفاع أسعار مشتقات الطاقة العالمية يمكن أن يعزز الوضع المالي للحكومة اليمنية المعترف بها دوليا. يمكن لقطاع الصناعات الاستخراجية في اليمن أيضًا أن يجذب الشركات الدولية ويحظى باهتمامها في حال دفعت العقوبات المفروضة على صادرات النفط الروسية تلك الشركات نحو تنويع مصادرها، ولكن في الواقع العملي، سيستمر العنف وانعدام الأمن في الحد من مشاركة البلاد في أسواق الطاقة العالمية.

مع استمرار الصراع لوقت أطول، أخذ الاقتصاد اليمني في التشكل والتطور أكثر فأكثر ليصبح اقتصاداً مزدوجاً بحكم الأمر الواقع، اقتصاداً منقسماً بين المناطق التي تسيطر عليها الحكومة المعترف بها دولياً والمناطق الخاضعة لسيطرة سلطات الأمر الواقع. ومع عدم كفاية الإيرادات لتغطية احتياجات الإنفاق في عام 2021، واصلت الحكومة المعترف بها دولياً أنشطة تمويل عجزها المالي من خلال زيادة الكتلة النقدية، مما أدى إلى تراجع حاد للقوة الشرائية للريال اليمني. بعد سنوات من تمويل العجز المالي من خلال زيادة الكتلة النقدية، تجاوزت الحكومة المعترف بها دولياً النقطة التي كانت فيها العوائد قصيرة الأجل لهذا الحل تعوض عن الآثار السلبية على التضخم وديناميكيات أسعار الصرف. نتيجة لذلك، تسبب التضخم المرتفع في عام 2021 في انكماش الإنفاق العام من حيث القيمة الفعلية على الرغم من توسع الإنفاق العام من حيث القيمة الإسمية. إلا أنه وعلى الرغم من ذلك فقد أدت التطورات الأخيرة إلى تعزيز مصداقية السياسة النقدية للحكومة المعترف بها دولياً، حيث ساعد وضع آلية عمل مزادات بيع وشراء العملات الأجنبية في البنك المركزي، بي شكل دوري، في منتصف نوفمبر 2021، وكذلك تعيين إدارة جديدة للبنك المركزي في ديسمبر 2021، على استقرار سعر الصرف، الذي أغلق العام الماضي عند سعر صرف 952 ريال يمني لكل دولار أمريكي، بعد أن كان قد بلغ ذروته عند سعر صرف 1,725 ريال يمني لكل دولار أمريكي قبل ذلك بأيام قليلة فقط، أي خلال نفس الشهر (في الثاني من ديسمبر). وعلى الجانب الآخر، تدير سلطات الأمر الواقع في صنعاء سياستها المالية من خلال الأوراق النقدية فقط، مما أبقى على مستويات التضخم في المناطق التي تسيطر عليها سلطات الأمر الواقع منخفضة ومستقرة.

في بداية أبريل 2022، من المرجح أن عدة تطورات مهمة قد غيرت آفاق الصراع الجاري في اليمن. فأولاً، بدا الموقف المالي للحكومة

المعترف بها دولياً أقوى بشكل كبير بعد إعلان (من المملكة العربية السعودية والإمارات العربية المتحدة) عن حزمة دعم بقيمة 3 مليارات دولار أمريكي. وثانيًا، أدى نقل السلطة من الرئيس السابق هادي إلى مجلس رئاسي مكون من 8 أعضاء إلى تعزيز موقف العديد من الجماعات والهويات المختلفة في المناطق التي تسيطر عليها الحكومة المعترف بها دولياً. جاءت هذه التطورات المهمة بعد أيام قليلة فقط من مشاورات يمنية يمنية نظمها مجلس التعاون الخليجي في الرياض واتفاق هدنة لمدة شهرين أعلنته الأمم المتحدة في 2 أبريل. كما تم تشكيل لجنة مصالحة لمساعدة المجلس الرئاسي في التفاوض على مسار للمصالحة مع سلطات الأمر الواقع. على الرغم من عدم المعرفة الكاملة لمزيد من التفاصيل حول الشروط والجدول الزمني لحزمة الدعم المالي في الوقت الحالي، إلا أن الآثار الاقتصادية كبيرة للغاية. ارتفعت قيمة الريال اليمني في كل من عدن وصنعاء بعد فترة وجيزة من الإعلان في بداية أبريل 2022. وعلى الرغم من استمرار التقلبات في أسعار الصرف، إلا أنه من المتوقع أن يساعد هذا التوجه في خفض أسعار الاستهلاك في الأسواق المحلية، مما يمثل احتمال تجاوز التوقعات فيما يتعلق بأزمة الأمن الغذائي الجارية والهائلة.

من المتوقع حدوث انتعاش متواضع في معدل نمو الناتج المحلي الإجمالي في عام 2022، إلا أن الآفاق الاقتصادية لليمن تعتمد بشكل كبير على تطور الصراع والظروف الأمنية العامة على الأرض. فقد تكون تلك التطورات سلبية التأثير، حيث يمكن أن تؤدي موجات الأعمال العدائية بالإضافة إلى استمرار ارتفاع أسعار الواردات إلى تقويض وضع القطاع الخاص. أما من حيث التطورات الإيجابية، فيمكن أن تؤدي عوامل كتجدد الآمال في تحقيق السلام، والحزمة المالية الكبيرة المقدمة من المملكة العربية السعودية والإمارات العربية المتحدة، والتحويلات المالية المتزايدة، وإمكانية زيادة صادرات النفط والغاز إلى تسريع النمو على المدى المتوسط.

1

ECONOMIC DEVELOPMENTS

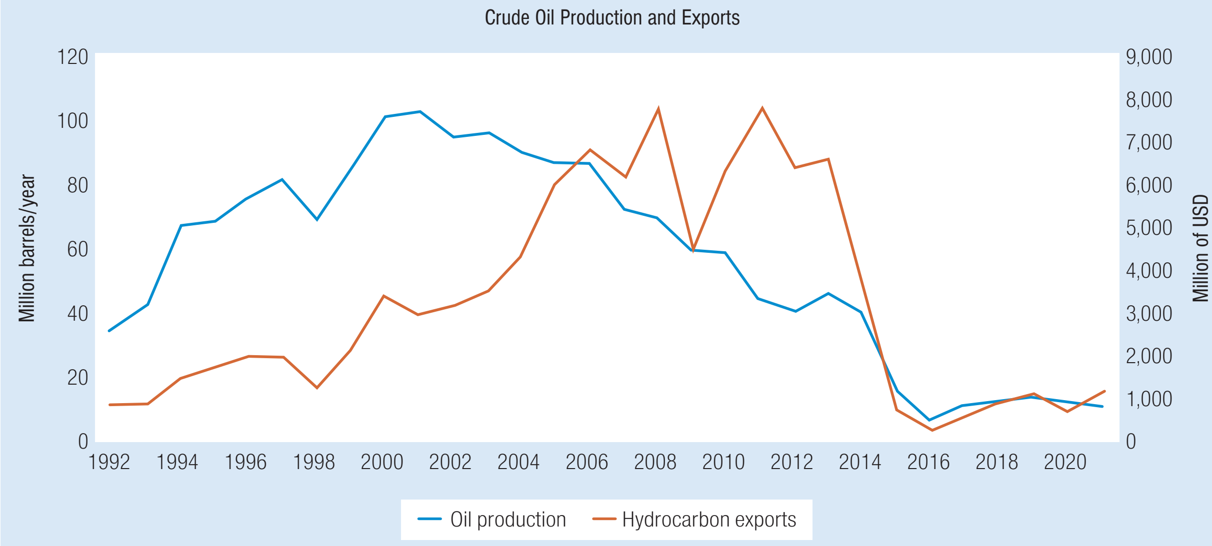
An Overview of the Changing Patterns of Growth in Yemen

Data limitations severely complicate efforts to measure how the conflict has impacted Yemen's economy. However, an analysis of pre-conflict data and some directly observable changes reveal the scope of the conflict's economic damage and the associated humanitarian disaster. Moreover, while insecurity and violence are the proximate cause of Yemen's current crisis, pre-conflict economic conditions greatly exacerbated the population's vulnerability to shocks.

Yemen's oil sector dominated the economy for roughly two decades but had limited effects on the population's wellbeing. For more than 20 years before the conflict, oil production was central to Yemen's economic output and growth trajectory. Between 2005 and 2014, oil production was the most significant component of GDP, and the oil sector contributed about 75 percent of all public revenue. However, oil-driven growth caused the non-tradable services sector to expand disproportionately while the agriculture and industrial sectors atrophied, following the familiar pattern of an economy afflicted by the "resource curse." In the absence of a broad-based, employment-intensive expansion, household vulnerability increased, and the national poverty rate rose from 34 percent in 2005 to 48 percent in 2014.

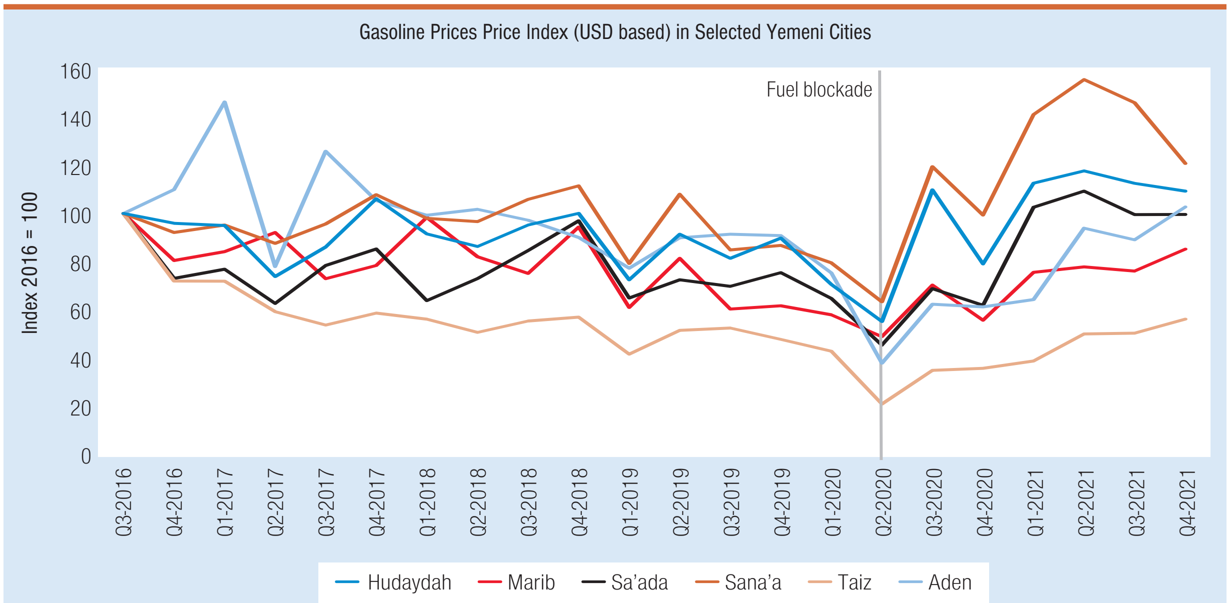
The escalation of tensions and worsening of the security conditions between 2014 and 2015 drastically reduced oil production (figure 1). The collapse of oil production sharply reduced GDP and slashed government revenue. While oil output fluctuated in response to changing conditions on the ground, overall production fell from about 200,000 barrels per day during 2009–2014 to just 36,000 barrels per day between 2015 and 2021. Oil production plunged at the outset of hostilities in 2015–16 and rebounded only slightly in subsequent years. While oil production was already declining before the conflict, LNG production had been gaining in importance before coming to a total standstill in 2016. Falling hydrocarbon output and the conflict-related exit of several foreign petroleum companies caused a sharp

FIGURE 1 • The Oil Sector Was Decimated by the Start of the War in Late 2014



Source: Authorities, IMF, and WB Staff computations.
* Hydrocarbon exports include LNG.

FIGURE 2 • Fuel Shortages have Impacted the Price of Energy Commodities, Particularly so in Northern governatorates



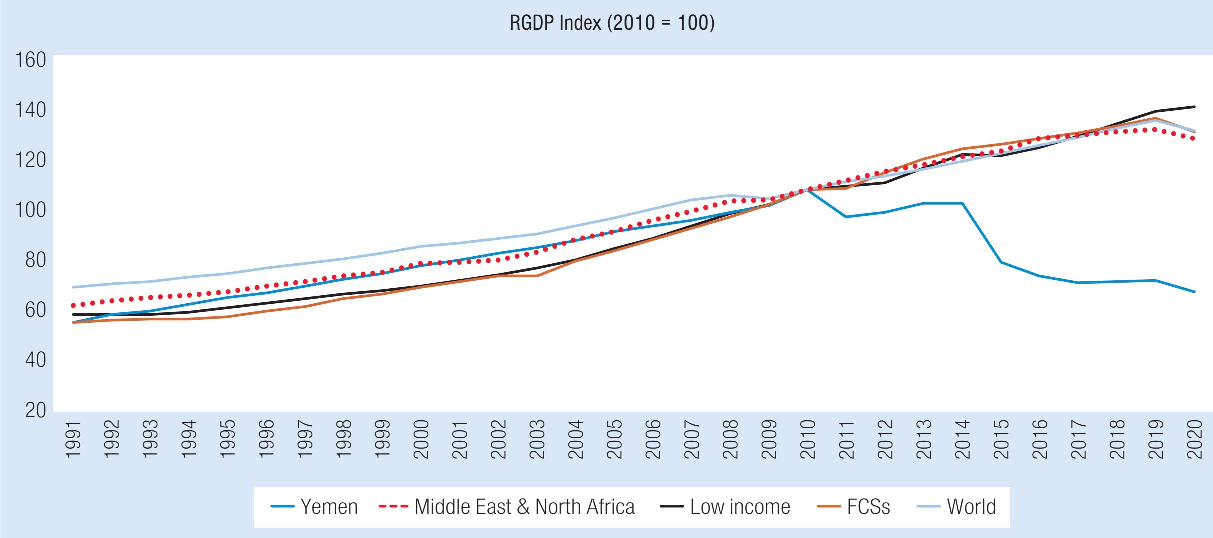
Source: WFP data and WB Staff calculations.

revenue contraction, which pushed the IRG's fiscal deficit to about 15 percent of GDP in 2015 and 2016.[2]

Following the collapse of oil production, Yemen's structural growth patterns have been steadily negative and compare poorly with other low-income and fragile countries. Multiple factors contributed to Yemen's worsening economic conditions, including diminishing agricultural productivity, the deterioration of institutional and governance

[2] See page 16 for more details on fiscal aggregates.

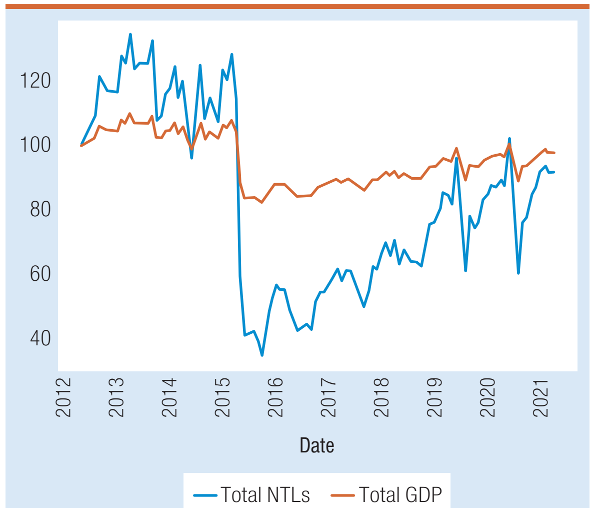
FIGURE 3 • Yemen's Growth Trends Compare Very Poorly with Regional and Structural Comparators, Reflecting the Devastating Effects of a 7-Year Long Conflict



quality, and governmental interference in the private sector. However, the decline in oil production had the most significant negative impact on GDP. Although official figures are not consistently available, World Bank projections indicate that real GDP has contracted by 50 percent over the last decade (Figure 3). Contractions were observed in all years of the conflict except 2018 when donor assistance surged and oil output temporarily rebounded, following the almost complete shutoff in 2015–16.[3] However, a series of new domestic and external shocks, including the COVID-19 pandemic, a cholera epidemic, and climate-related natural disasters, caused renewed contractions in 2020 and 2021. As a result, Yemen's estimated macroeconomic performance since 2010 compares poorly with the experience of regional and structural comparators, including other fragile countries.

Corroborating the large, estimated decline in real GDP, nighttime lights (NTLs) fell sharply as the conflict escalated in March 2015.[4] Nighttime lights are strongly correlated with economic activity and can serve as a proxy for changes in GDP in situations where a more traditional statistical analysis is not possible.[5] Trends in nighttime lights closely track the estimated evolution of Yemen's GDP during the first several years of the conflict (Figure 4). The sharp decline in light output between 2015 and 2016 almost

FIGURE 4 • Estimates of Economic Activity by Year Based on Nighttime Lights Confirm the Substantial GDP Drop in the Conflict's Aftermath



3 Oil production rebounded after the almost complete stop of operations in 2016, when less than 6 million barrels were produced in the entire year.

4 This is corroborated by both Fetzer (2017) and World Bank (2017.)

5 See, e.g., Henderson et al. (2011.)

certainly reflects the collapse of oil production and the departure of international petroleum companies. The trendline also shows signs of very gradual recovery from 2017 to 2021, which may be consistent with the private sector partially adapting to its new circumstances. However, the recovery in nighttime lights in recent years was much stronger than the estimated recovery in GDP, and further research will be necessary to address this disparity.

In the midst of humanitarian emergencies, a significant share of total expenditure is devoted to food and the measurement of poverty converges towards the measurement of food access. Official estimates of the food security situation in Yemen have significantly worsened in the past two years, with the share experiencing acute food insecurity increasing from approximately 45 percent of the population in 2020 to approximately 58 percent of the population in 2022. The primary causes of the worsening include rising global food prices, large cuts to vital food assistance in the regions controlled by the de facto authorities in Sana'a, and a large depreciation of the currency in the regions controlled by the internationally recognized government leading to even further rises in food prices.

Given further increases in food prices and declines in humanitarian assistance in the latter half of 2021 (much of which occurred after many of the interviews that were conducted in the last face-to-face assessment), the conditions are likely to have worsened. The estimated further decline in the share of population with poor access to food is corroborated by high-frequency mobile phone surveys conducted by the WFP at the very end of 2021 and in January/February of 2022. The share of mobile phone users with poor food access increased by 10 percentage points in regions controlled by the internationally recognized government and 6 percentage points in regions controlled by the de facto authorities.[6]

Notwithstanding a sizeable overall drop in GDP, the impacts of the conflict on sub-national production patterns vary significantly.[7] NTL-based output estimates also estimate economic activity at the sub-national level, though these data appear to be affected by noise and seasonality. However, decreases in nighttime lights have been significantly worse in regions controlled by the DFA. In addition, the governorates of Al Maharah, Al Jawf, and Marib have experienced increased nighttime lights since the escalation of the conflict. The apparent turnaround of the Marib governorate, which was previously one of Yemen's more underdeveloped regions but is now one of its better-performing governorates, is especially striking.

Since the conflict escalated in March 2015, fuel shortages have been added to a growing list of growth bottlenecks. These shortages stem from multiple causes. At times, inspections to verify that commercial shipments do not contain weapons have amounted to a partial blockade on imports. At other times, armed forces have explicitly blocked fuel distribution across regions within Yemen. The legal competition over the economy, and the fuel sector specifically, was pursued also through regulatory efforts, such as Decree 75 and Decree 49, aiming respectively at increasing the oversight on fuel imports, and requiring the payment of duties and taxes before shipments entered Yemeni ports.[8] Since Q2 2020, rising tensions with neighboring countries and disagreements among IRG and DFA authorities have prevented fuel vessels from docking at the Port of Al Hodeida, resulting in chronic fuel shortages in northern Yemen.[9] In addition, smugglers have established a parallel fuel market where pump prices are more than four times the national average and supplied from the South. Elevated global oil prices are expected to exacerbate the fuel shortages, further suppressing economic activity while eroding household welfare.

Data limitations notwithstanding, productivity growth appears to have been sluggish before the warv and tumbled down as the conflict escalated.[10] Violence and insecurity prevent the

6 These increases refer to the food price rises registered at the end of 2021.

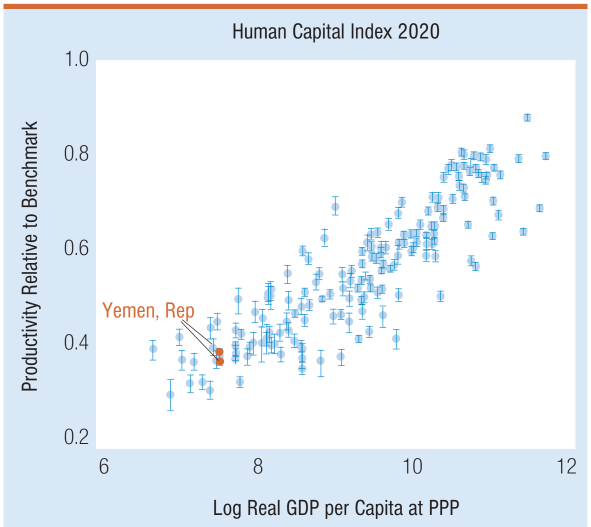
7 See Annex for more details on the sub-national nighttime lights graphs.

8 Cfr. Brokering a Ceasefire in Yemen's Economic Conflict, International Crisis Group (ICG), January 2022.

9 As a part of the recent truce, it was agreed that 18 fuel ships would enter Hodeidah, and as of April 2022, a number of these have already done so.

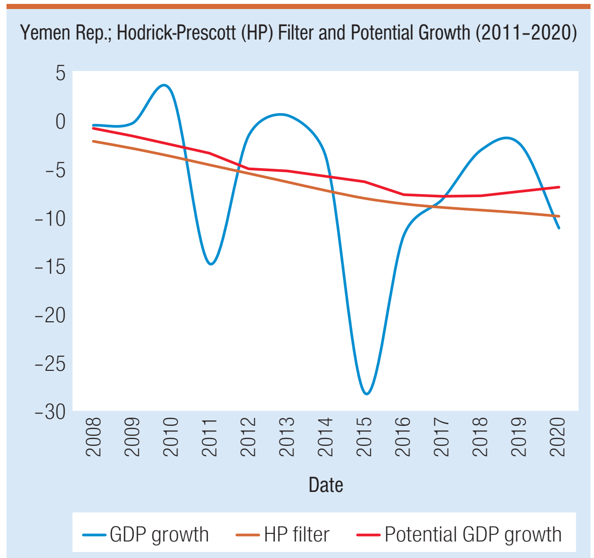
10 The Hodrick-Prescott filter is a statistical tool that can separate the structural and cyclical components of growth, shedding light on Yemen's growth patterns. The Hodrick-Prescott filter is calculated until the year 2100

FIGURE 5 • Yemen's Long-Term Growth Will Massively Depend on Preserving and Building Human Capital...



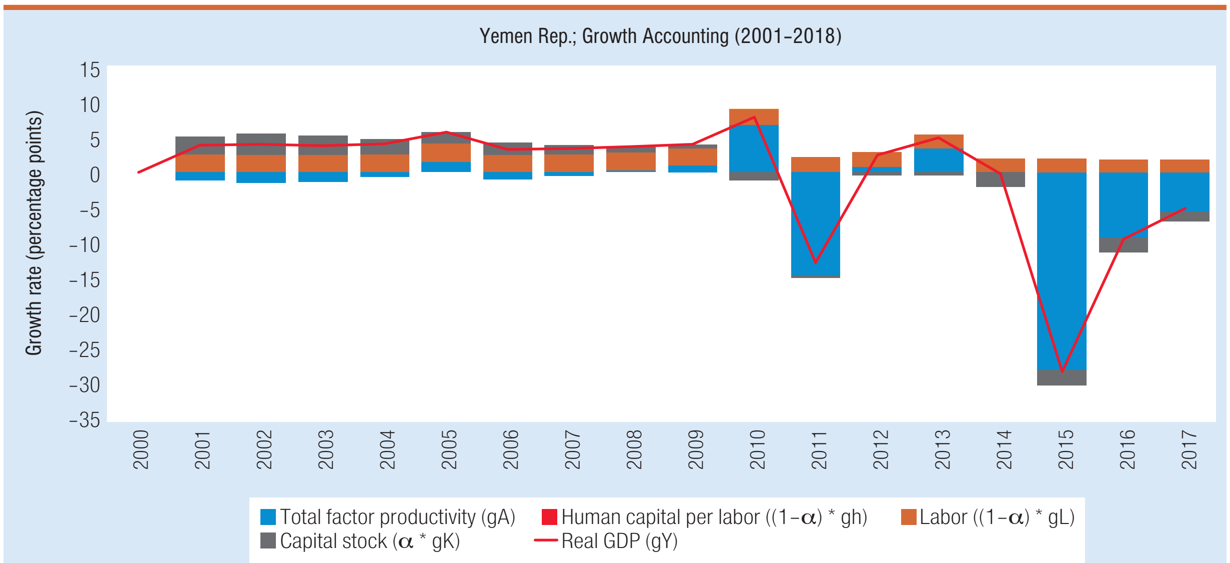
Source: World Bank, Human Capital Project, Oct 2020.

FIGURE 6 • ...In a Context Where Potential Growth and...



Source: WFP data and WB Staff calculations.

FIGURE 7 • ...productivity have Been Slashed by the Conflict



efficient reallocation of resources and have wholly derailed the normal conduct of economic activities, leading to a massive decline in total factor productivity (Figure 6 and Figure 7). In addition, the destruction of fixed capital has directly reduced economic output, while a combination of worsening health and education outcomes, rising emigration, and increasingly

and smoothed at 100. The deviations (yellow line and grey line) from the smoothed curve (dark blue line) in Figure 5 represent temporary deviations from Yemen long-term actual and potential GDP growth trajectory. An already negative growth trend worsened drastically with the 2014–15 crisis, pushing GDP into a deep contraction from which it has not yet recovered. Source: World Bank MFMod Database.

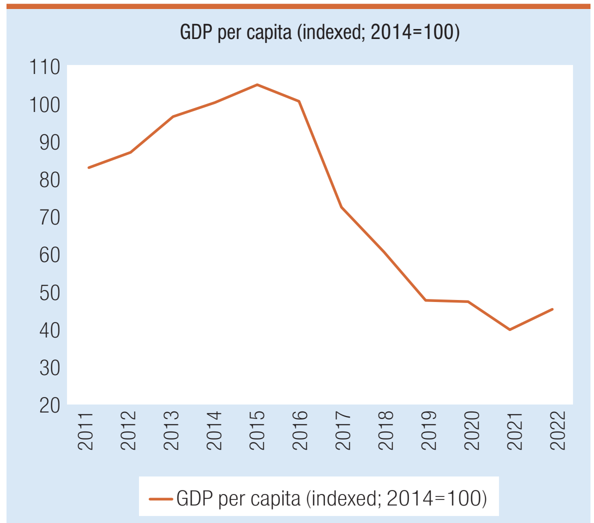
truncated labor markets has steadily eroded human capital and weakened labor productivity.

The erosion of human capital may seriously affect Yemen's long-term potential growth. According to the World Bank's Human Capital Index, a child born in Yemen in 2020 will reach only 37 percent of what their lifetime productivity could have been, had they enjoyed complete education and full health—below the average for the Middle East and North Africa region and slightly below the average for low-income countries worldwide (Figure 5).

Recent Developments: Economic Growth

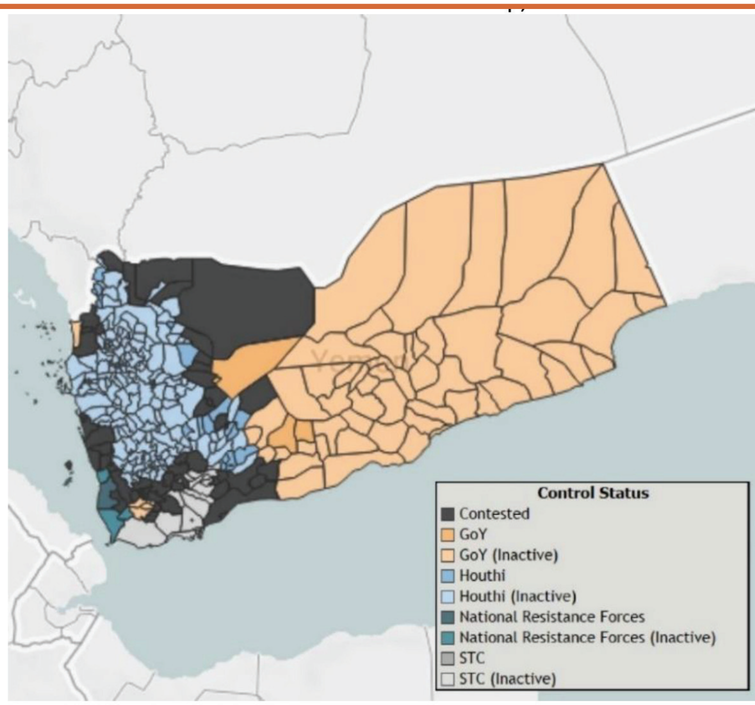
Following more than seven years of conflict, Yemen faces an unprecedented economic and social crisis. A combination of violence and insecurity, deteriorating health conditions, and multiple environmental and weather-related shocks have slashed Yemen's GDP per capita to roughly half its 2014 level (Figure 8). In addition, extensive damage to vital public infrastructure has severely disrupted essential services, and ongoing security threats have slashed oil exports—previously the economy's lifeline—sharply limiting foreign exchange available for imports of food and other essential goods. Meanwhile, the division of national institutions

FIGURE 8 • GDP Per Capita Roughly Halved between the Start of the War and the Present



Source: IMF and WB Staff calculations.

MAP 1 • Territorial Control Reflects the Highly Fragmented Nature of Groups, Identities, and Interests in the Country



Source: ACLED; https://acleddata.com/mapping-territorial-control-in-yemen/.

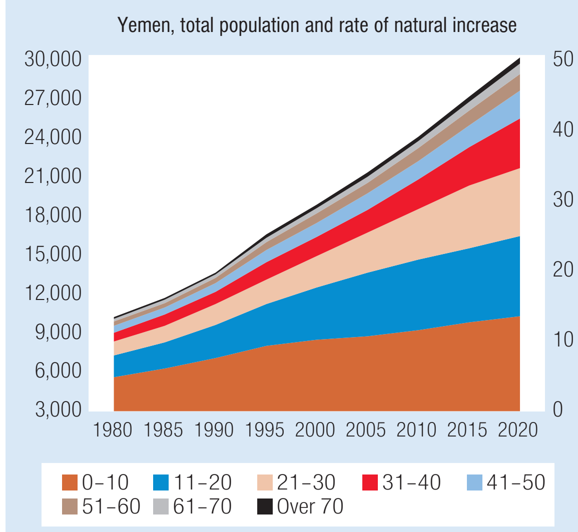
between the internationally recognized government (IRG) based in Aden and the de facto authority (DFA) in Sana'a have compounded Yemen's economic, social and humanitarian crisis.

Conflict developments have predominantly driven economic activity. The onset of the conflict led to a sharp drop in economic activity. In 2018–19, as conflict activity stabilized, oil production and exports picked up, thereby supporting a recovery. However, that recovery proved fleeting, and the economy's downward trajectory resumed when the conflict intensified anew in 2020 with a contraction of 8.5 percent, followed by a further contraction in 2021, projected at 2 percent. Limited official data on Yemen's national accounts prevent a detailed analysis of GDP by sector. Most economic activity is informal— almost three-quarters of employed individuals are estimated to work in the informal sector[11]—and consumption is supported primarily by remittances and foreign

[11] Yemen Damage and Needs Assessment: Crisis Impact on Employment and Labour Market, International Labor Organization (ILO), 2016.

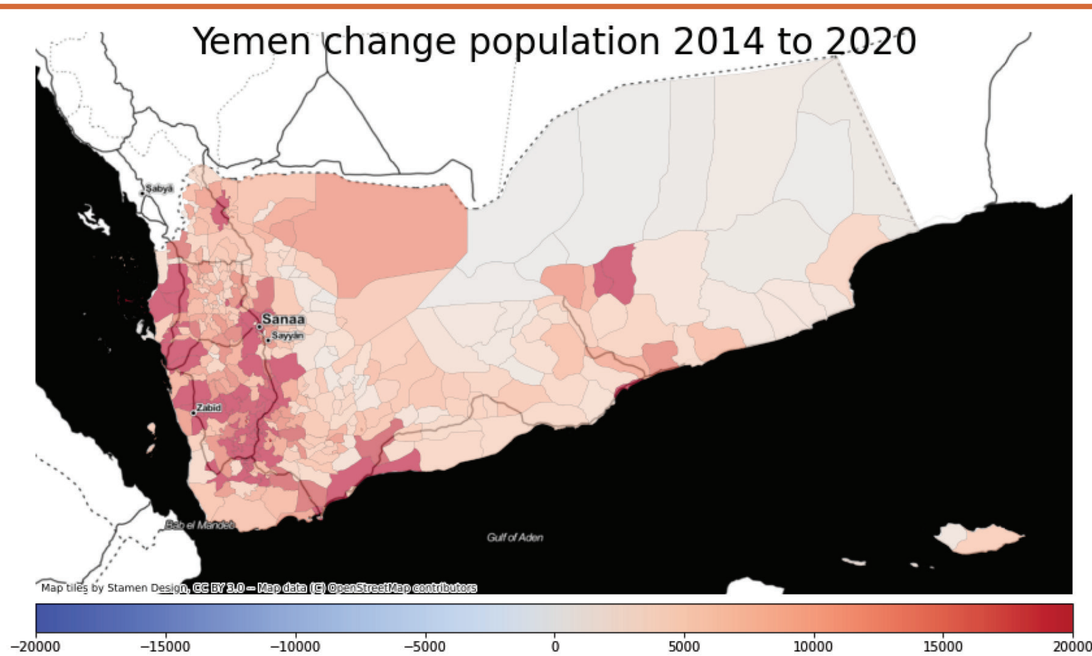
FIGURE 9 • Yemen's Population Roughly Doubled over the Last 25 Years, Heightening the Criticality of Moving towards a Peace Process to Reinstate the Conditions for Job Creation and Perspectives for Young People

Population Pyramids, Yemen (1997 vs 2022)



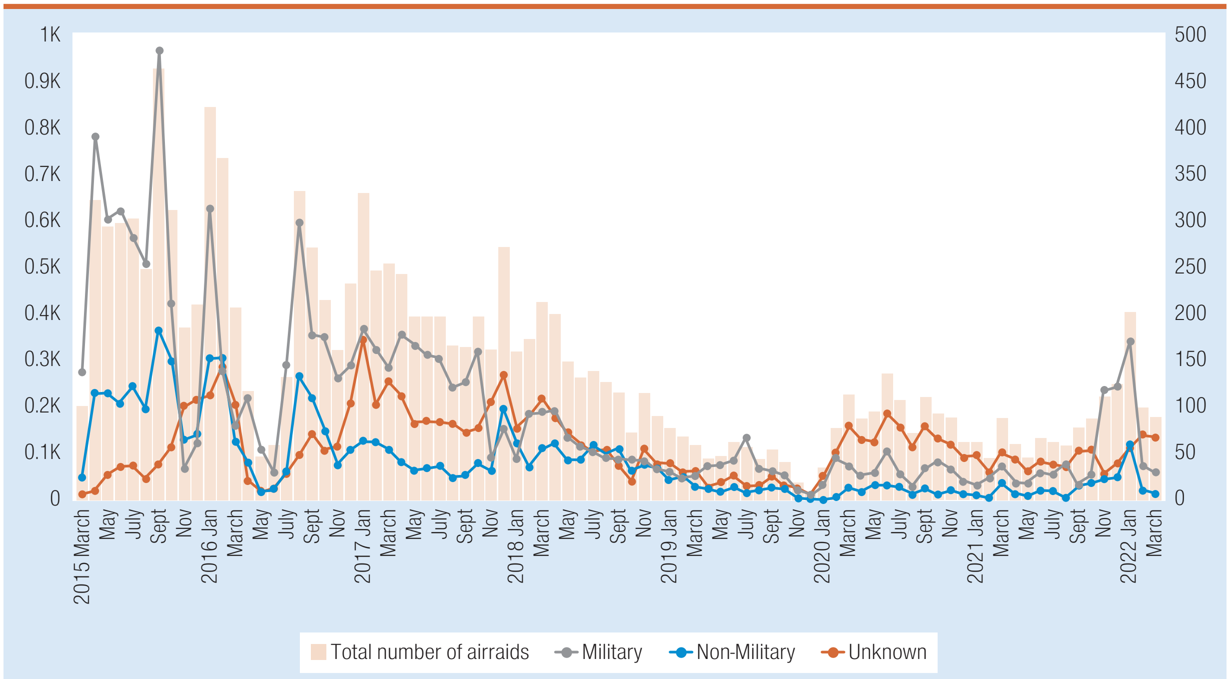
Source: United Nations, Population Division of the Department of Economic and Social Affairs (UNDESA).

MAP 2 • While the Country's Population is Still Concentrated Mainly in Urban Settings, Numerous People have Fled to Increasingly Urbanized Countryside Settings in Response to the War, as They are Perceived Safer

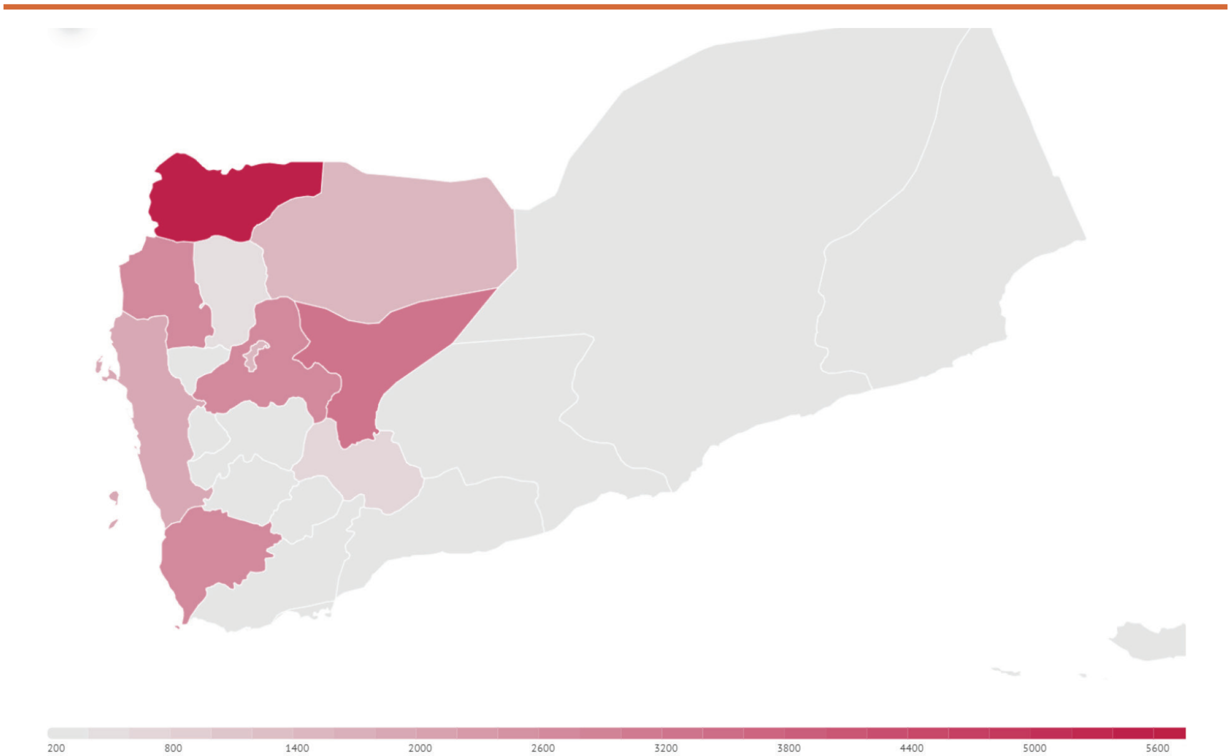


Source: WB staff computations, based on www.WorldPop.org (estimates at 100m resolution).

FIGURE 10 • Air Raids have Intensified During 2020-21 as Well as Internal Fights, Worsening the Toll of Military and Civilian Casualties and Contributing to the Destruction of Assets

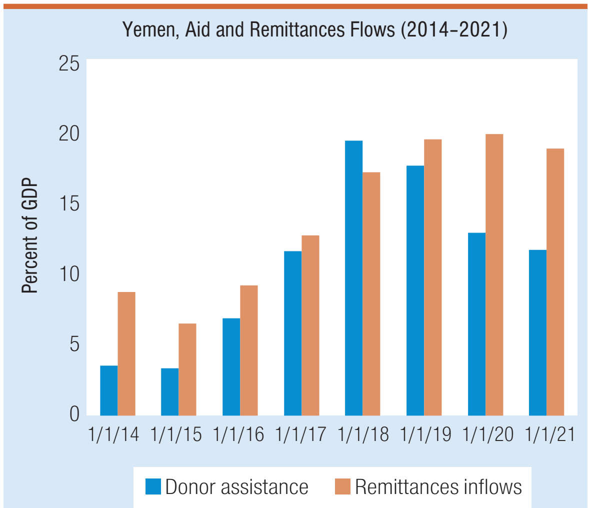


MAP 3 • Air Raids have Been Significant in Northern and Coastal Governorates
Air Raids (cumulative, 2015-2021)



Source: Yemen Data Project (www.yemendataproject.org; April 2022).

FIGURE 11 • Foreign Aid and Remittances Represent a Significant Source of Hard Currency. Their Trends are Affected by Global Economic Conditions and Geopolitical Developments, and their Importance in Stabilizing the Macroeconomic Context in Yemen Predates the War



Source: Yemeni authorities; IMF; and WB staff estimates (refers to flows towards Yemen overall).

aid (Fig. 11). In the wake of the oil sector's collapse, agriculture has become the mainstay of the real economy, despite being weakened—prior to the conflict—by changes in water and land utilization, and—in more recent years—by floods and locusts have further weakened agricultural output. Only a few oilfields remain active, and all of them are running largely below capacity. Seven years of inactivity have dried up other oil wells and degraded machinery, affecting current and medium-term production capacity.

A combination of supply- and demand-side factors has driven the renewed contraction of economic activity since 2021. Between 2020 and 2021, deteriorating purchasing power (triggered by the fiscal deficit monetization) undermined private consumption, particularly in the southern part of the country. At the same time, the COVID-19 pandemic exacerbated the conflict's negative effect on production, resulting in surging prices and shortages of essential goods. Moreover, the economic fallout from the war in Ukraine, coupled with a broader worldwide increase in inflationary pressures, has compounded these challenges. On the other hand, trade has been debilitated by the war's repercussions in terms of fixed capital losses, port closures, foreign exchange shortages, and exchange rate volatility.

Public Finances

IRG's total public revenues declined by 0.8 PP of GDP in 2021, to 5.7 percent.

- **Despite growing hydrocarbon export values, oil revenues (as a percentage of GDP) sharply contracted in 2021, reflecting a high GDP deflator.** As global oil prices rose from an average of US$40 in 2020 to US$70 in 2021, the value of Yemen's oil exports increased from 3.8 percent of GDP to 5.3 percent of GDP. While nominal fiscal revenues from the oil sector soared by almost 20 percent (in Yemani Riyal terms), the large increase in inflation and nominal GDP resulted in a decrease of oil revenues as a percentage of GDP from 2.4 percent in 2020 to 1.7 percent in 2021. Moreover, the Yemeni tax system is marked by structural elements that curb the revenue mobilization capacity of the government: for instance, the use of a below-market exchange rate of 400 Yemeni rials (YER) per US dollar for foreign-exchange transactions,[12] translates into large forgone revenues. As the IRG's market exchange rate averaged YER 1,035 per US dollar in 2021, the revenue gap from this policy alone is assumed to be sizable (estimated at close to 3 percent of GDP).
- **Similarly, IRG's nonoil revenues increased nominally during 2021, while contracting as a percentage of GDP. Nonoil revenues remain**

[12] Prior to the war, the exchange rate in use for these forex (and custom) transactions was fixed at YER250: USD1. With the start of the war, the exchange rate to calculate customs or fx transactions duties has not been modified until January 2021, when the government increased it from 250 to 400 (for foreign transactions) or 500 (for customs). This generated a significant increase in revenues, from 2021 onward. At the same time, strong anecdotal evidence points to the existence of large inefficiency and room for corruptive practices, as informal compensations beyond the fixed exchange rate would appear to take place systematically. Please see box 1 for more details.

BOX 1. THE MACROECONOMIC EFFECTS OF MULTIPLE EXCHANGE RATES WITHIN YEMEN

The use of multiple exchange rates represents a potential source of corruption, inequality, and inefficiency. Agents within the economic system who are able to access the most favorable rates can generate significant amounts of money with little-to-no risk. In some other cases, the exchange rate differential (for example related to the use of below-market exchange rates for taxation of forex transactions) represent a sizeable loss revenues (estimated to close to 3 percent, in 2021) whose opportunity cost is non-negligible, given the dire needs of the country for basic public services and goods. Strong anecdotal evidence points to the existence of informal payments (that are closer to the market-based exchange rate). Inefficiency can also be an issue, as the various FX rates may result in sharply different prices for items subject to different rates, hence distorting relative prices and resulting in non-optimal factor allocation in the overall economy.

heavily constrained by a small tax base and by accounting practices that reflect continued use of a below-market exchange rate. Nonoil revenue increased significantly in nominal terms (by roughly 40 percent) between 2020 and 2021, while a combination of high inflation and currency depreciation led to a contraction from 4.1 percent to 3.6 percent, as a percentage of GDP. As with oil revenues, customs revenues remained inhibited by the use of a below-market exchange rate and frequent trade blockades during 2021. Importantly, the IRG's low tax revenues also reflect a structurally very small tax base in the areas controlled by the IRG.

On the expenditure side, the IRG has continued its contractionary fiscal trend, albeit capital expenditure has marginally increased (y-o-y) in 2021. For the third year, IRG's total fiscal expenditures decreased to 10.7 percent of GDP in 2021 from 14.3 percent in 2018. The decline was entirely concentrated in current spending, which declined from 11.1 percent of GDP in 2020 to 9.6 percent in 2021, with wages and salaries and interest payments making up most of the decline.[13] In contrast, capital expenditures rose for the first time since 2018; however, at 1.1 percent of GDP in 2021, public investment remains vastly insufficient to offset the destruction caused by the conflict and is likely below standard fixed-asset depreciation rates.

Continued fiscal deficit monetization in IRG-controlled areas contributed to exacerbate inflation, ultimately also undermining the impact of public spending. In nominal terms, the IRG has increased current and capital expenditures by 41 and 161 percent year-on-year during 2021, respectively, resulting in a combined 49 percent annual nominal increase in total expenditures. However, the currency depreciation in IRG-controlled areas (largely driven by a combination of sentiment and monetary financing) contributed to rampant inflation in 2021, limiting the impact of public spending in real terms.

Regardless of the area of control, public finances in Yemen are under severe stress. Yemen's fiscal policy is profoundly influenced by the separation of authority between Sana'a and Aden and by specific local-level institutional power dynamics that are difficult to decipher. While data is limited, the IRG's fiscal position appears weak, with fiscal deficits hovering around 5 percent of national GDP. On the other hand, in DFA-controlled areas, which include some of Yemen's main commercial and financial hubs, the economy operates under a cash-based budget system.

The IRG is expected to face additional fiscal pressure as development partners have discontinued their debt-relief initiatives. Since 2016 Yemen has been in debt distress and has not been servicing its external obligations. The sole exception is external public debt service to the World Bank and IMF. On the World Bank side, the Debt-Service Suspension Initiative (DSSI),[14] introduced to help IDA countries

[13] Cfr Special Focus Chapter on civil servant payments.

[14] Established in May 2020, the G20-led Debt-Service Suspension Initiative (DSSI) aimed to help countries concentrate their resources on fighting the COVID19 pandemic and safeguarding the lives and livelihoods of millions of the most vulnerable people. The outcome of the DSSI was that bilateral official creditors suspended debt service repayments from the poorest countries, for a limited period of time. The World Bank and the IMF supported the technical implementation of the DSSI—by monitoring spending, enhancing public debt transparency, and ensuring prudent borrowing.

during the Covid-19 pandemic, enabled the IRG to defer about US$750 million in debt service to official bilateral creditors, until 2022–28. Meanwhile, grants provided through the IMF's Catastrophe Containment and Relief Trust (CCRT)[15] cleared US$60 million in repayment obligations. However, the DSSI and the CCRT have now ended (the former in December 2021, the latter in April 2022.)

The IRG and DFA operate independent fiscal and monetary policies. Since former President Hadi relocated the Central Bank to Aden in September 2016, Yemen has had two monetary authorities. The new CBY-Aden had a monopoly on money creation, which has been used to monetize the IRG's fiscal deficit. As a result, the YER in IRG-controlled areas depreciated from an average exchange rate of 245 to 612 YER per US$ over 2015–19; this pushed the DFA in late 2019 to ban the use of CBY-Aden's newly printed banknotes in their controlled areas. Since then, the money supply is believed to have remained stable in the DFA while continuously expanding in the IRG, and as the two are not fungible, Yemen has had two diverging exchange rates, more and more prominently since early 2020. These factors lead to starkly different monetary developments across Yemen:

- **In the IRG-controlled areas, expansionary monetary policy contributed to put downward pressure on the exchange rate, although there have been tentative signs of declining monetary financing in recent months.** In nominal terms, the IRG's monetary base expanded by 13.3 percent in 2020 and 13.7 percent in 2021, contributing to an uptick in IRG's average inflation from 24.8 percent in 2020 to 53.0 percent during 2021. On the upside, preliminary data show that the pace of monetary financing of the deficit has recently been on the decline, reflecting ongoing efforts to strengthen CBY's monetary framework.
- **Meanwhile, due to supply-side restrictions, DFA-controlled areas exhibited similar monetary outcomes, though different in magnitude and source.** The DFA has been operating on a cash basis following a ban on banknotes printed after 2016 by the Aden CBY. Nonetheless, akin to its Southern counterpart, inflation accelerated in the Northern regions of Yemen from an average of 10.9 percent in 2020 to 30.2 percent in 2021. Several factors may stand behind this acceleration, including rising global commodity prices and supply-side shocks ushered in by the trade or transport restrictions across the country.

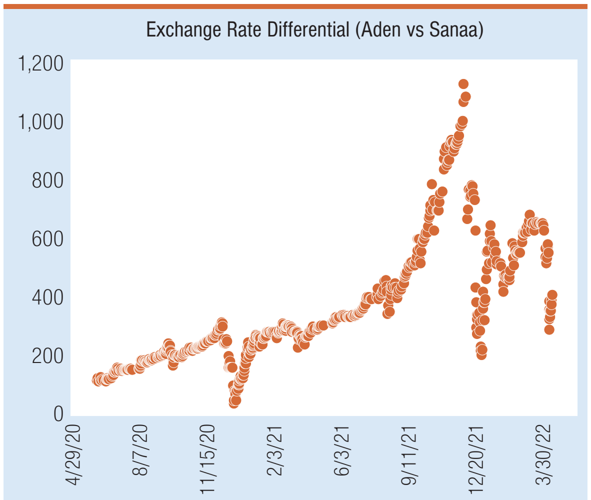
At the end of 2021, IRG authorities took steps to mitigate and manage mounting inflationary pressures and to stabilize the exchange rate. With a view to improve efficiency and transparency in the monetary system, in November 2021, CBY authorities introduced a foreign-exchange auction mechanism,[16] followed by the appointment of new central-bank management in December 2021. These encouraging developments were followed, in early 2022, by CBY-Aden's adherence to the money growth limits set in its annual plan.

The country's exchange rates differential among northern and southern governatorates remains conspicuous. In the IRG, the currency depreciated from an average exchange rate of 724 YER per US$1 in 2020 to an average rate of 1,027 YER per US$1 in 2021. On the other hand, in the DfA-controlled areas, the capped money supply resulted in virtually no depreciation during 2021. Since the proactive steps taken in November-December 2021, the exchange rate spread dropped markedly (Fig. 11) from a peak of 1075 basis points (on December 2, 2021) to one of its lowest levels in over a year, at 205 basis points (on December 28, 2021). Moreover, the recent announcement by the Saudi Arabia and UAE related to the financial support package to Yemen contributed to a new dip in the exchange rate differential, highlighting the intrinsically volatile nature of the recent trend. .

[15] In March 2020, the IMF adopted a set of reforms to the Catastrophe Containment and Relief Trust (CCRT) to enable the Fund to provide immediate debt service relief for its poorest and most vulnerable members affected by the COVID-19 pandemic and any future pandemics. The trust provides grants to pay debt services owed to the IMF for eligible low-income member countries.

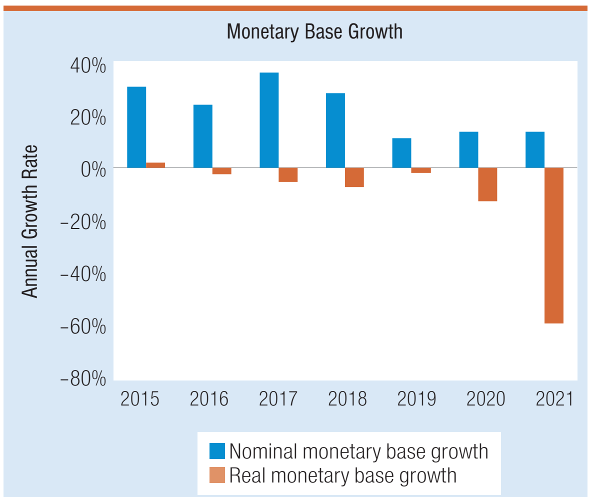
[16] This and all subsequent mentions of the "central bank" refer to the IRG-aligned institution.

FIGURE 12 • The Exchange Rate Spread between the Northern and Southern YER Widened Significantly during Most of 2021, until it Suddenly Dropped at end-2021due to Improved Monetary Policy Oversight and Prospects



Source: Yemen Economic Tracking Initiative (YETI), https://yemen.yeti.acaps.org/fx-commodities.

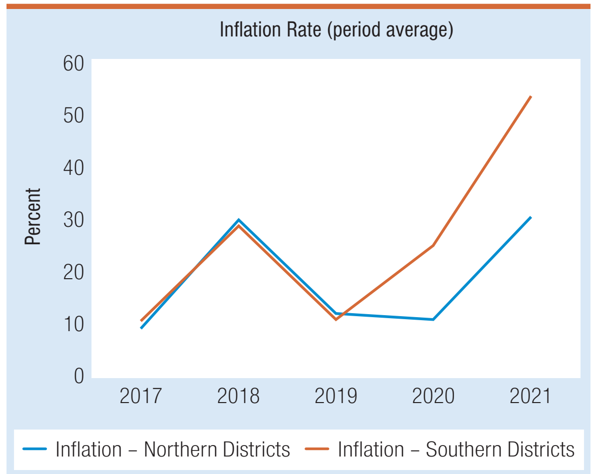
FIGURE 13 • Despite Large Nominal Increases in the Monetary Base, the Real Monetary Base Growth Turned Increasingly Negative, Due to Rampant Inflation



Source:IMF and World Bank Staff Calculations.

In this context, unchecked inflation resulted in negative seignorage returns for the IRG's treasury. In 2021, the expansion of monetary deficit operations by the Central Bank continued, albeit at a declining pace than in previous years. At the same time, the inflationary pressure, which resulted from a combination of external factors, expectations, and monetary policy actions, decreased the real money supply by a massive 58.8 percent (in the Southern governatorates of Yemen). CBY appears to have exhausted the usefulness of this monetary policy tool in late 2015, as the returns in terms of real monetary base growth have become increasingly negative from 2016. In 2021, the negative repercussions and risks of such a policy stance greatly outweighed its benefits. On the upside, there have been encouraging developments, as preliminary data and discussions with aurhotities point to a decrease in the growth of net claims in 2021, and a decline in the pace of monetary financing.

FIGURE 14 • Prices of Water and Sanitation Services and Essential Foods Raised Unevenly across the Country in 2021: by 36% in IRG-Controlled Areas and by 3% in DFA-Controlled Areas. By end-2021 the Combined Price was 73% Higher in the Former than in the Latter Regions, with Aden Facing the Highest Increases[a]



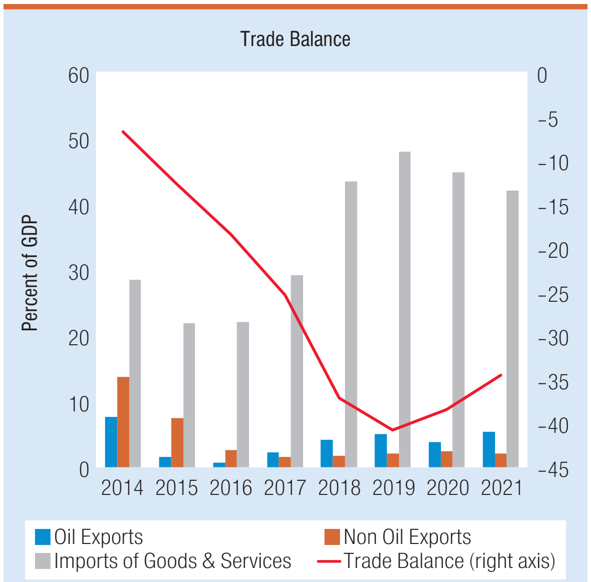
Source: WFP and World Bank Staff Calculations.

[a] The designation between Northern and Southern governatorates is based on geographic considerations taken from the WFP-VAM database. Northern governatorates include (1) Addaleh Town; (2) Al Bayda City; (3) Al Hazum; (4) Al Hudaydah City; (5) Al Jabeen; (6) Amran City; (7) Bani Matar; (8) Dhamar City; (9) Hajjah City; (10) Haradh Town; (11) Ibb City; (8) Mahweet City; (9) Marib City; (10) Sa'ada City; (11) Sana'a City; and (12) Taiz City. Southern governatorates include (1) Aden City; (2) Al Ghaidha; (3) Al Hawta Town; (4) Attaq Town; (5) Mukulla City; (6) Sayoun City; (7) Soqatra (Hudaibo); and (18) Zungubar City.

External Accounts

Yemen's current-account deficit narrowed during 2021, as rising oil export prices contributed to

FIGURE 15 • Yemen's Trade Balance Remains Severely Negative, although on a Slightly Improving Trend, Reflecting Increasing Global Prices of Energy Commodities, which Yemen also Exports



Source: IMF.

offset a decline in inbound transfers. Higher global oil prices helped boost oil exports from 3.8 percent of GDP in 2020 to 5.3 percent in 2021. As a result, although inbound transfers fell from 32.4 percent of GDP in 2020 to 29.8 percent in 2021, Yemen's current-account deficit narrowed from 6.0 percent of GDP to 4.7 percent.

Supported by the IMF's general SDR allocation, in August 2021, Yemen showed its first balance-of-payments surplus since Saudi Arabia's 2018 deposit at the central bank. Strictly from an accounting perspective, the recent SDR allocation, in the amount of approximately US$665 million, reduced net financial outflows from 3.8 percent of GDP in 2020 to 0.8 percent in 2021, pushing Yemen's balance of payments to a surplus of 1.5 percent of GDP. However, from a structural standpoint, the balance remains heavily skewed toward the liability side, and the SDR allocation is a one-off windfall. As of early April 2022, the IRG has not indicated how the SDR allocation will be utilized once the amount is converted. Furthermore, no conditions are attached to SDR-converted funds, leaving the authorities free to deploy them at their discretion.

EFFECTS OF THE WAR IN UKRAINE, ON THE YEMENI ECONOMY

The Russian invasion of Ukraine has disrupted international commodity markets, and global prices for wheat and oil are rising rapidly. Russia and Ukraine together produce about one-quarter of global wheat exports, and Russia is the world's single largest wheat exporter. On February 15, 2022, Russia implemented a new wheat and cereals export quota for countries outside the Eurasian Economic Union, while the Azov Sea shipping lanes that transport a large share of Ukrainian wheat exports have been blocked. Due to the conflict and other factors, the UN Food and Agriculture Organization (FAO) Cereal Price Index rose by over 30 percent, year-on-year, between April 2022 and April 2021. Meanwhile, global oil prices have shot up and are now holding steady at multi-year highs.

Yemen is directly exposed to these disruptions, as Russia and Ukraine supply a significant share of its imported staple grains. Food accounts for almost one-third of Yemen's total imports, and wheat is its second-largest imported good after fuel. Yemen imports about three million metric tons of wheat per year, about 26 percent of which comes from Russia and 21.5 percent from Ukraine. Humanitarian aid finances most of Yemen's wheat imports, but humanitarian and commercial importers are both sensitive to supply shocks and price changes. Over the past year, domestic food prices rose by 20–30 percent, due primarily to currency depreciation. The volume of wheat imports into Yemen may decline in the near term as supply shortages prompt wheat importers to search for new source markets. Meanwhile, rising global grain prices will adversely impact procurement by humanitarian agencies. The World Food Program already estimates a six-month funding shortfall of roughly US$ 0.7b in Yemen alone to cover its baseline of around 13 million people in need established in 2019.

Soaring oil and wheat prices will have a major impact on Yemen's economy, though their implications are not uniformly negative. Yemen is a net importer of oil and food, and rising prices will adversely affect the external balances, the supply of essential commodities, and inflation rates. Rising import prices will also further deplete international reserves, which are currently estimated at barely one month of imports. On the other hand, Yemen is an exporter of crude oil, which partially offsets the price increase of imports of petroleum products. In addition, rising global crude-oil prices could bolster the IRG's fiscal revenues. At current production levels, which are far below historical averages, higher oil prices could boost revenues by US$300-800 million in 2022, an increase of 38-80 percent over 2021. However, this forecast hinges on prices remaining above US$100 per barrel. In principle, Yemen's oil and gas sector could benefit if sanctions on Russian exports push importers to diversify their source markets, but in practice the country's instability and insecurity sharply constrain Yemen's access to global markets. Finally, robust oil-driven growth among Gulf Cooperation Council (GCC) member states could increase remittances from Yemeni workers abroad, partially offsetting the widening trade deficit.

2

OUTLOOK AND RISKS

We project Yemen's economy to register a modest rebound in 2022 due to low base effects, the two months' truce, an expected increase in remittances, and the expected financial support from the Saudi and Emirates. In the absence of additional domestic or external adverse shocks, Yemen's GDP is expected to increase by 0.8 percent in 2022.

External financing conditions were expected to be critically tight during 2022… On the one hand, the termination of the DSSI at the end of 2021 and the closure of the CCRT in April 2022 increased financial pressure, as both initiatives had allowed the IRG to benefit from zero debt service on liabilities from the IMF and official bilateral creditors, during part of 2020 and 2021.[17] Similarly, during a recent High-Level Pledging Event for the Humanitarian Crisis in Yemen, donors pledged to finance just US$1.3 billion of a proposed US$4.3 billion UN aid plan for Yemen,[18] continuing a declining trend in foreign financial assistance between 2018 and 2021.

…However, recent major developments (as of early April 2022) shifted the outlook towards potentially brighter upside scenarios. Days after a two-month truce[19] facilitated by the UN, Yemen's President Hadi transferred authority to a "Presidential Leadership Council" (PLC) on the last day of GCC-sponsored peace consultations in Riyadh at the beginning of Ramadan. Shortly after this announcement, KSA and UAE announced a US$3 billion financing package[20] (US$2 billion in deposits at CBY, and US$1 billion in the form of oil derivatives and development aid). This financing is urgently needed as estimates indicate a concerning expansion of Yemen's current account deficit from 4.7 to 12.3 percent of GDP (between 2021 and 2022), which would have resulted in a large widening of the

17 The World Bank and the IMF are the only two creditors on which Yemen has not defaulted.

18 See the conference proceeding and plan overview.

19 The terms of the truce include the resumption of fuel imports at the Port of Hodeida and commercial flights at Sana'a International Airport.

20 The Yemeni Rial (YER) massively appreciated on Aden's parallel exchange market from a midpoint of YER 1,142 per US$1 (on 04/06/2022), to YER 850 per US$1 shortly after the two announcements were made (04/07/2022.) The currency appreciation was not only limited to Southern Yemen. Over the same period, the YER appreciated in Sana'a, too, from YER 595 per US$1 to YER 525 per US$1, returning to levels that had been last recorded only in 2019.)

financing gap and a sharp drop in gross international reserve levels, already hovering at less than a month worth of imports.

The impacts of these recent events on the Yemeni economy have been immediate and are expected to help stabilize the exchange rate, ease upward pressure on prices, and improve fiscal balances. With CBY's ongoing adherence to the monetary growth parameters set in its annual plan, these developments are expected to translate into significant improvements in the consumer price levels in Yemen. As a result, despite continued volatility, the exchange rate spread is narrower than in the latter part of 2021. This, coupled with improved prospects on the global demand for Yemen's extractive and energy resources (while this remains highly contingent on the security situation on the ground), makes it safe to assume that fiscal balances will also benefit from the new conjuncture. Improved fx liquidity in the system is also expected to benefit the private sector, as it is likely that authorities will respond to repeated requests by the banking sector to increase the volume of the fx auction mechanism (from its current weekly size of 20 million).

Once the SDRs allocated to Yemen are converted, Yemeni authorities will face a wide range of options. Some of the key questions on this front are about the social discount rate of using SDRs for present or future purposes, whether they should be kept in reserves, or whether the funds should focus on current or investment purposes. Assuming that a Voluntary Trade Agreement is reached during 2022, the IRG might elect among a very large range of options, including (and not limited to): i) *enabling imports that are critical to preserve human capital*. These imports would meet what are essentially the humanitarian needs of the population, including food and fuel, and/or essential health imports (including vaccines, beyond the COVAX no-cost allocation); (ii) (Trade finance option) *finance essential food imports* via dollar-denominated supply arrangements with importers or augmented guarantees offered in cooperation with international financial institutions; (iii) *finance development-related imports*, while remaining mindful that recurrent finance needs may be associated with equipment expenditures as well as broader challenges on whether equipment-intensive projects are viable (or feasible) in an ongoing conflict context (iv) *maintain access to IFI financing* by using the funds to maintain Yemen's favorable debtor profile with international financial institutions; (v) *provide funding for the newly established FX auction system*; and (vi) *establish a dedicated development fund, where partners could pool resources, which would help ensure accountability and build domestic capacity for prioritization, technical expertise, as well as supervision and monitoring.*

Yemen's economic prospects in the short term and beyond remain highly uncertain, as they will be profoundly shaped by the evolution of the peace process or conflict and the overall security conditions. External factors affecting global commodity prices, and food imports availability, will also play a major role on the Yemeni economy, as the recent war in Ukraine demonstrated. On the downside, escalating hostilities in the context of surging international oil prices would further undermine the already complex environment in which the private sector operates. On the upside, rising remittances from GCC countries, improved fx liquidity, increased hydrocarbon exports, and the prospects of a peace process are expected to act as accelerators of growth.

Urgent reforms are critical to strengthening the resilience of Yemen's macroeconomic and fiscal framework. While the KSA and UAE financing package, along with the anticipated SDR conversion, could be leveraged to reduce large financing gaps and stabilize the rial, these one-off windfalls will not eliminate the need for structural measures to address the economy's deep-seated imbalances; key among them is to end fiscal deficit monetization, to help stabilize the exchange rate and inflation. Aligning the official exchange rates with the market exchange rate could boost revenues, and utilizing flared gas to generate electricity could yield significant fiscal savings by supplanting fuel-oil imports. However, the feasibility of investing in the necessary infrastructure, including for increased hydrocarbon production and exports, would hinge on security conditions. Keeping trade open, by removing restrictions to the movement of goods and people, and fostering a favourable business environment will be critical to improving economic performance. Addresing the threats posed by the Safer oil tanker on Yemen's Red Sea coast can further help defuse economic and environmental risks, as well as tensions, both domestically and regionally. Ultimately, a durable improvement in macroeonmic conditions and living standards will heavily hinge on a resolution of the conflict. Until that happens, government options will remain limited and external assistance will continue to play a critical role.

SPECIAL FOCUS CHAPTER: MAINTAINING THE SUPPLY OF ESSENTIAL SERVICES IN YEMEN

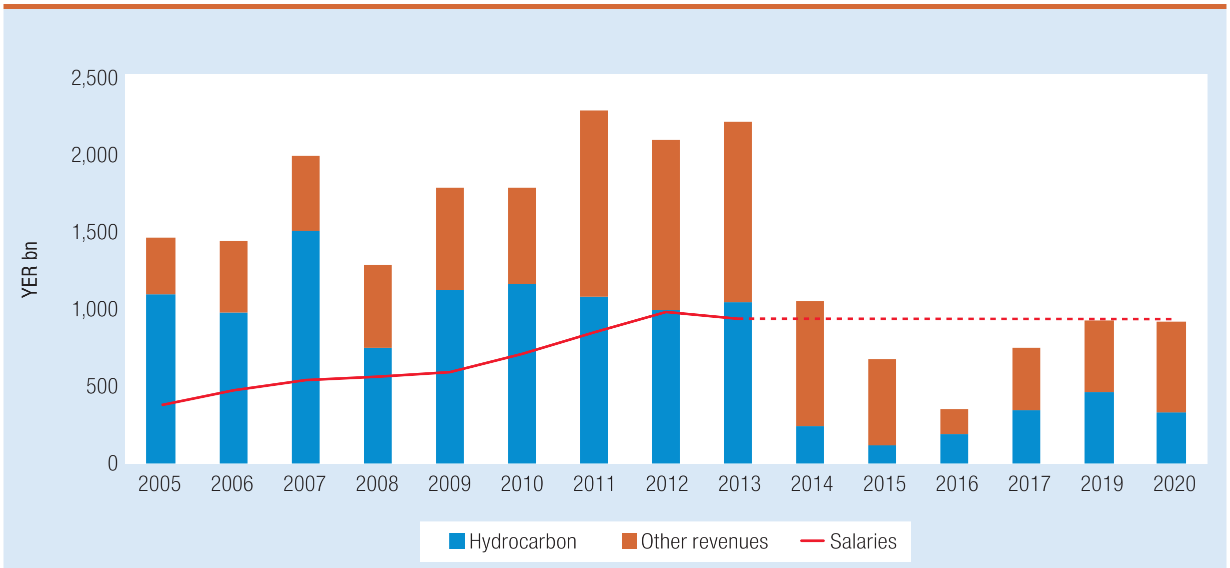
Seven years of conflict have inflicted a devastating economic, physical, and human toll. *Until an enduring peace can be achieved, policymakers must focus on preserving existing institutional infrastructure and maintaining the delivery of critical services. The conflict has disrupted the payment of civil-service salaries, particularly in the health and education sectors (which employ the largest number of civilian public sector workers), undermining efforts to safeguard human capital and prevent the further deterioration of human development outcomes. This section will review the state of the civil service payroll system and the short-term incentive payments currently financed by humanitarian and development partners, including the World Bank. The section evaluates potential strategies for harmonizing short-term incentives in the education and health sectors. Its assessment is based on evidence from a literature review, as well as interviews with key stakeholders in civil society, and international institutions active in the country. However, as with other aspects of Yemen's economy and public sector, a high degree of uncertainty and pervasive lack of data complicate the analysis.*

Yemen's Civil Service and the Public-Sector Payroll

Even before 2015, Yemen's large public-sector workforce posed risks to fiscal sustainability, and the budgetary stress of the conflict has made the wage bill unaffordable. Historically, Yemen's public sector has been the country's largest employer. Prior to the current conflict, the public sector employed more than 1.2 million workers—40 percent of which civilian— and supported millions of dependent family members. Outside the military, the education and health sectors accounted for the largest shares of public employment. An estimated 350,000 civil servants were employed in the education and health sectors, accounting for approximately 70 percent of the civilian payroll.[21] Between 2006 and 2014, Yemen's wage bill grew by an average of 12 percent per year, while annual revenue growth averaged just 8 percent. In 2014, the public-sector wage bill totaled YER 977 billion,

[21] These estimates are based on 2012 biometric registration data for the education sector, the 2014 wage bill, and the 2016 UNDP rapid assessment.

FIGURE 16 • Fiscal Revenue[a] and the Public-Sector Wage Bill (2006-2020)



Source: WB staff calculations based on IMF data in 2010, 2014 and 2021.
[a] The historical data for revenues from 2006 to 2014 cover the whole of Yemen. The World Bank relies on the available IMF revenue data from 2015 onward. The IMF data include IRG revenue information only.

equivalent to about US$4.5 billion,[22] representing 42 percent of revenues or 10 percent of GDP. The wage bill's trajectory was unsustainable before the conflict, and after hostilities escalated in 2015 the public-sector payroll swiftly exceeded the government's total annual revenue (Figure 16).[23]

The large public-sector wage bill, the collapse of revenue due to the conflict, the relocation of the government, and the enormous fiscal cost of the conflict itself contributed to the suspension of civil-service salary payments in mid-2016. By early 2017, the IRG resumed salary payments in areas under its control. Although the monetization of the fiscal deficit enabled the authorities to continue paying salaries, the resulting inflation eroded their purchasing power. IRG salary payments to teachers and healthcare workers in DFA-controlled areas largely ceased in September 2016, when the IRG relocated the central bank to Aden. For a short period in 2019, the IRG also paid the salaries of 50,000 civil servants in DFA-controlled areas, but this initiative was suspended once the use of rial banknotes printed after 2016 was banned in areas controlled by DFA and the value of the rial began to significantly diverge between the two territories. The DFA reportedly made irregular salary payments in half-month increments to civil servants in the areas under its control between 2017 and 2020. A total of 20 half-salary payments were made in DFA-controlled areas over the 2017-2020 period, covering costs equivalent to 10 months of salaries.[24]

While the total number of civil servants in Yemen cannot be reliably estimated, by 2018 approximately 250,000 civil servants were receiving salaries from the IRG, while about 225,000 civil servants in DFA-controlled areas and were not being paid regularly.[25] This situation

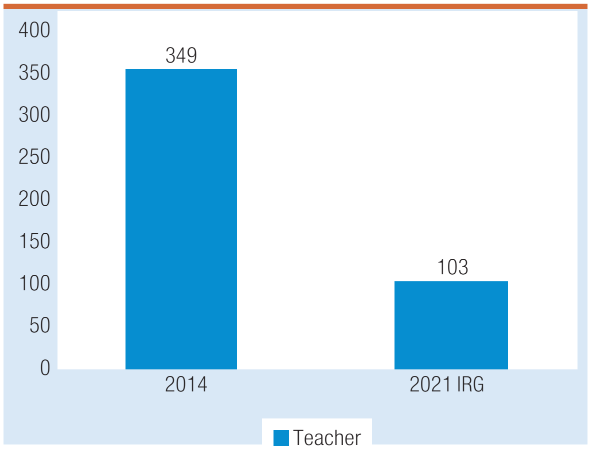
[22] This figure reflects an exchange rate of YER 215 per US dollar.

[23] International Growth Centre. 2020. "Public sector salaries in Yemen: Towards building confidence in the peace process." London, UK, World Bank, 2020. Joint World Bank/UNDP/UNOPS/UNICEF Discussion Note: *Proposed Approach for Facilitating the Payment of Civil Servants in Yemen*. Washington DC: World Bank.

[24] World Bank. 2020. Joint World Bank/UNDP/UNOPS/UNICEF Discussion Note: Proposed Approach for Facilitating the Payment of Civil Servants in Yemen. Washington, DC: World Bank; Stakeholder interviews in November to December 2021.

[25] IGC. 2020. Public sector salaries in Yemen: Towards building confidence in the peace process. London, UK.

FIGURE 17 • The Estimated USD Value of Average Salaries of Teachers[a] in IRG-Controlled Areas, 2014 and 2021 (US$)



Source: Data shared with World Bank staff by UNICEF.

a. The figure used for teachers is YER 74,798 which is the estimated average of the 2014 education pay scale for teachers, expressed in US dollars, based on currently available information. WB data suggests that many teachers may have been paid an amount of YER47,972. Figures are subject to change as more or better data emerge.

continues. For instance, the Central Statistical Orga-nization (CSO) of Yemen has indicated that its staff receives on average only one month of salary every six months.

Due to the ongoing fiscal and monetary crisis, most teachers and healthcare workers are either unpaid or vastly underpaid. The continued nonpayment of civil-service salaries in the 11 governorates controlled by the DFA has led to absenteeism and widespread incidents of informal payments being demanded at schools and health centers. UNICEF reports that 171,000 teachers (an estimated 64 percent of all teachers in Yemen) have not received regular salary payments since 2016.[26] In the health sector, UNDP and media reports indi-cate that 26,000 to 30,000 health workers are not receiving regular salary payments.[27] In areas where payments were made, the 2014 payscale remained in effect until 2019, when the IRG added a 30 percent allowance to compensate for the impact of inflation. Despite this measure, the purchasing power of civil-servant salaries has fallen drastically since 2014 (Figure 17).

As the public sector has struggled to pay healthcare workers, private service providers have expanded, and emigration has increased.

While private facilities offer better compensation, patients are left with few options for affordable public healthcare. Meanwhile, the nonpayment of salaries has reportedly accelerated emigration among specialized medical professionals, many of whom have relocated to neighboring countries. While the impact of "brain drain" in the health sector cannot be clearly measured, the emigration of skilled professionals can adversely affect the availability of health services, over both the short- and long-term.

Incentive Payments in Education and Health Sectors

In response to these challenges, Yemen's development partners have begun providing incentives as supplemental payments to essential workers to sustain service delivery. Given Yemen's unique circumstances on public salary payments, these incentives play a role beyond a sheer *supplement*, as they compensate (and motivate) public sector workers who: i) should be receiving salaries (but are not; e.g. teachers who were on 2014 payroll but currently not receiving regular salaries), ii) who keep delivering services despite having no expectation of receiving salaries (e.g. temporary teachers and teachers who were not on the 2014 payroll), and iii) who continue delivering services whether they receive salaries or not or whether they are formally entitled to receive salaries or not (e.g. health workers)..

Yemen's development partners offer a wide range of incentive payments, but limited coordination risks programmatic redundancy and fragmentation. Payment modalities include salary top-ups, per

26 UNICEF. ND. "Support for Teachers in Yemen: Education Teachers Incentive and Rural Female Teachers." Presentation.

27 UNDP. 2016. "Yemen Rapid Assessment Report for December 2016: Measuring the impact of the public sector wage suspension on basic service delivery in the healthcare and education sectors." See also: "UN cuts extra pay for health workers in Yemen just as COVID-19 hits" in New Humanitarian May 7, 2020. https://www.thenewhumanitarian.org/news/2020/05/07/coronavirus-health-yemen-unpaid-world-health-organisation-cuts.

TABLE 1 • Incentive Payment Modalities in the Education and Health Sectors (country-wide)

	Output-based	Performance-based	Uniform amount	Regular payment (in a defined period)	Paid to staff on 2014 payroll	Paid to staff not on 2014 payroll	Paid to staff who receive regular salary	Paid to staff who do not receive regular salary
Incentive	x	✓	x	✓	✓	✓	✓	✓
Top-up	x	✓	x	✓	✓	✓	✓	✓
Per diem	✓	x	✓[a]	✓	✓	✓	✓	✓
Hazard pay	x	✓	✓	✓	✓	✓	✓	✓
Stipend	x	✓	✓	✓	✓	x	x	✓
Supplemental salary	x	✓	✓	✓	x	✓	x	✓

[a] These figures indicate a uniform amount per worker category.

diems, hazard pay, stipends, and supplemental salaries (Table 1) Different sectors and donors use different modalities. For example, the Yemen Restoring Education and Learning Emergency (REAL) project provides incentives (modaility: stipends) to teachers who were on the 2014 payroll, as well as salary allowance to female teachers in rural areas; the Emergency Health and Nutrition Project provides per diems for routine outreach visits; and the Yemen COVID-19 Response Project provides both per diems and hazard pay. Anecdotal evidence suggests that the donor community did not expect a protracted conflict when these modalities were defined, which explains the variety of approaches that have been taken over time.

UNICEF leads the provision of incentives in the education sector, and these initiatives appear to be streamlined. UNICEF is the only large-scale provider of education incentives in Yemen, though civil-society organizations (CSOs) also provide incentives on a smaller scale. In school year 2018/2019, UNICEF—through the joint advocacy of the Global Partnership for Education (GPE), Education Cannot Wait, and UNESCO—launched the Education Teacher Incentives (ETI) program, which paid a US$50 monthly stipend[28] to teachers who were on the 2014 payroll but have not been receiving a government salary. To qualify for this incentive (modality: stipend), the teacher had to be present during at least 75 percent of the time that they are expected to be in school. Financed by a US$70 million grant provided by the Kingdom of Saudi Arabia (KSA) and the United Arab Emirates (UAE), the ETI program supported over 128,000 teachers for 7 months in 2018/19, and over 111,000 for 5 months in 2019/20. Since 2014, UNICEF has also managed the Rural Female Teachers (RFT) program, which provides supplemental payments of US$145 per month[29] to female teachers in rural areas who were not on the 2014 payroll. Funded by GPE, roughly 2,500 RFTs have received this support since 2014. In the 2020/2021 school year, KSA and UAE funder approximately 2,200 beneficiaries for three months.

A lack of donor funding for teacher incen-tives threatens to further disrupt the supply of education services. The ETI program was discon-tinued during the 2020/21 school year, and the RFT program was provided only for three months during the same school year,due to insufficient funding from the international community, which has put the educa-tion of up to 3.6 million children in 11 governorates —where salaries payments do not occur—at risk[30]. The WB-financed operation REAL project, which was approved by the World Bank Board in December 2020, is plugging some of the gap by providing performance-based incentives (i.e., stipends and allowance) to teachers. Implemented through UNICEF, WFP, and Save the Children and co-financed by the World Bank

28 Amount equivalent to US$50 per month was paid in YER.

29 This is equivalent to roughly 42 percent of the 2014 average teacher salary, which was US$349. It is important to note that the Rural Female Teachers program targets teachers who were not on the 2014 payroll.

30 UNICEF. ND. “Support for Teachers in Yemen: Education Teachers Incentive and Rural Female Teachers.” Presentation

TABLE 2 • Examples of Incentive Payments in the Health Sector, Modalities and Amounts

Modality	Examples	
Incentive payments for urban areas and top-up rates for remote areas	**2019 Health Cluster Harmonized Scale** (26 days, 8 hours per day) • Doctor (GP): Urban (US$650), Remote (US$813), Female/Remote (US$1,016), Very remote or Frontline (US$1,500), Female/Very remote or frontline (US$1,875) • Nurse: Urban (US$350), Remote (US$438), Female/Remote (US$547), Very remote or Frontline (US$438), Female/Very remote or Frontline (US$547) • Midwife: Urban (US$300), Remote (US$375), Female/Remote (US$469), Very remote or Frontline (US$375), Female/Very remote or Frontline (US$469)	**An International NGO-managed Hospital** (26 days, 8 hours per day) • Doctor: YER 500,000 (US$833 at conversion rate of US$1=YER 600) • Nurse & Midwife: YER 290,000 (US$483 at conversion rate of US$1=YER 600)
Per diem	**Outreach visits, 4 visits per month** (World Bank-financed Emergency Health and Nutrition Project implemented through UNICEF and the WHO) • Health Manager: In governorates with salary (US$25); with irregular salary (US$50); without salary (US$100) • Health Worker, Medical Assistant, Vaccinator or Midwife: In governorates with salary (US$40); with irregular salary (US$80); without salary (US$160)	**COVID-19** Per Diem (World Bank-financed Yemen COVID-19 Response Project implemented through the WHO) • Rapid Response Teams (two surveillance officers): US$8.93 per person per day • COVID-19 Hotline Operators (10 Public Health Coordinators in Sana'a): US$20.50 per person per day • COVID-19 Hotline Operators (eight Public Health Coordinators in Aden): US$34.02 per person per day
Hazard pay	**COVID-19 Hazard Pay** (World Bank-financed Yemen COVID-19 Response Project implemented through the WHO) • Isolation Center/Intensive Care Unit (two doctors, two nurses, one laboratory technician, and two cleaners): US$23 per person per shift	
Stipend (allowance)	**Health Cluster – Training** • Coordination allowance: YER 15,000 per training day • Coordination allowance (ministry level): YER 10,000 per training day • Supervision allowance: YER 15,000 per training day + one day • Coordination allowance (district level): YER 8,000 per training day + one day • Facilitator allowance: YER 6,000 per training day + two persons	

and GPE[31], the REAL project supports teachers who were on the 2014 payroll but do not currently receive a regular salary and temporary teachers in the governorates of Taiz, Marib, Ibb, Hodeidah, Sa'adah, Hadramout, and Abyan, all of which are experiencing acute teacher shortages. Using co-financing from the Global Partnership to Education, the program also provides supplemental salaries to over 2,200 female teachers in rural areas across 16 governorates.

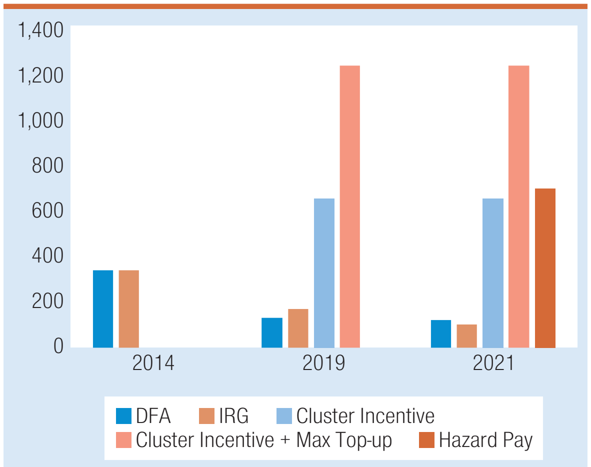
While many countries have utilized incentive payments in the education sector, the programs in Yemen face significant challenges around adequacy. It amounts to just one-sixth of the dollar value of the average teacher's salary in 2014. In October 2021, at prevailing exchange rates, it represented roughly 50 percent of the average monthly salary of a teacher in IRG-controlled areas, and around 40 percent of the average monthly salary in areas controlled by DFA, if salaries were being paid on time and in full. While incentives are not meant to replace salaries, the value of stipend provided pose a question of adequacy in areas where teachers do not receive regular salary payments.

Additional challenges in the education sector are related to equitability, eligibility, and coverage. Inclusion in the ETI program is based on the 2014 payroll. For example, teachers who were not on the 2014 payroll list,[32] such as new teachers hired during the conflict, as well as school administrators and temporary teachers, are not eligible for stipends. Coverage is therefore an issue. Given the scale of the sector, priority has been given to teachers working in rural areas and in areas where regular salary payments have been interrupted.

[31] US$100m grant is financed by the International Development Association and US$53 is provided by GPE as grants.

[32] An estimated 1,000 temporary teachers in IRG-controlled areas are not eligible for the program.

FIGURE 18A • Value of Payment Incentives, Top-Ups, Hazard Pay, and Per Diems for Doctors - Estimated Average Monthly Pay (US$) (Figures are Inflation-Adjusted. Payments/Incentives in YER have Been Converted Into US$ at the Prevailing Exchange Rate)



This, however, has left out school administrators, some temporary teachers (e.g., those who were hired after the 2014 payroll), and volunteer teachers.

Affordability is also a threat to the long-term sustainability of these programs. The estimated cost for the ETI program to continue supporting over 170,000 unpaid teachers is US$70 million per school year, while the cost of the RFT program is US$2.3 million per school year[33]. Given the size of the sector, the questions of affordability (or fundability by the donors) and sustainability of the incentive provisions remain. Donors may be unable to bear these costs indefinitely, which stresses the urgency of establishing reliable sources of financing for teacher salaries by country authorities.

Incentive programs for workers in the health sector are more complex and fragmented than in education, and highly sensitive to shifting donor priorities. While UNICEF and WHO play a major role in the Yemen's health sector, nearly 60 agencies and institutions support the provision of health services. Programmatic fragmentation has given rise to numerous payment modalities, benefit amounts, and inclusion criteria (Table 2.) The modalities seen in the health sector include payment incentives, top-ups, per diems, and hazard pay. Unlike the education

FIGURE 18B • Value of Payment Incentives, Top-Ups, Hazard Pay, and Per Diems for Nurses - Estimated Average Monthly Pay (US$)

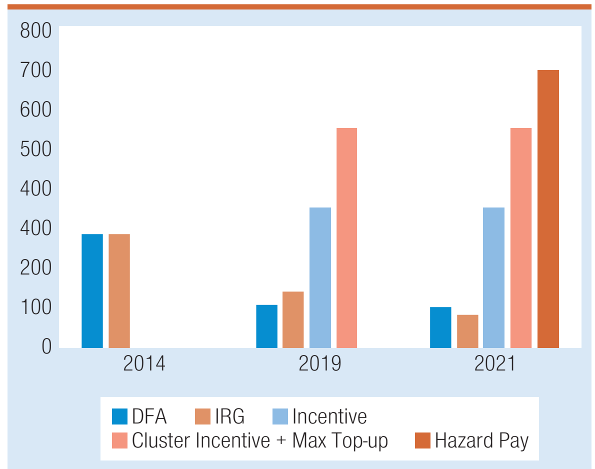
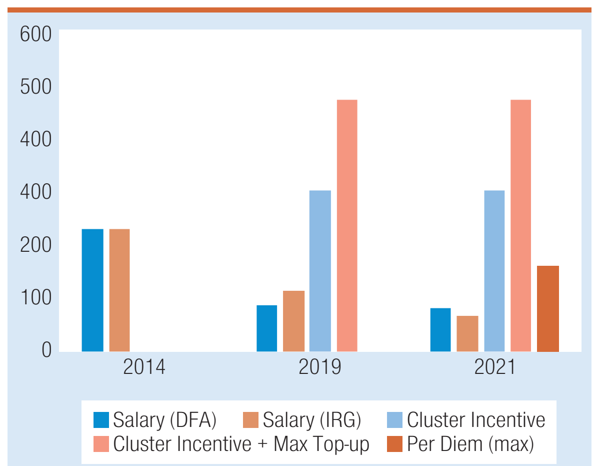


FIGURE 18C • Velue of Payment Incentives, Top-Ups, Hazard Pay, and Per Diems for Midwives - Estimated Average Monthly Pay (US$)



sector, the health sector has departed from the 2014 payroll in determining incentive eligibility. Some incentive programs only target technical or medical staff, while others include administrative staff in the health sector. Total additional payments to healthcare workers through incentives can substantially exceed

[33] UNICEF. ND. "Support for Teachers in Yemen: Education Teachers Incentive and Rural Female Teachers." Presentation.

the estimated value of their standard government salary (see examples in Figure.17 a, b, and c).

Several attempts to harmonize the incentive approach in the health sector have been made, and reform efforts are ongoing. The Health Cluster,—a group of donors and implementing partners—continues to make significant efforts toward generating a more joined-up approach for providing incentives in the health sector. In 2019, it conducted an incentive survey, representing 50 partners out of 58 active in Yemen. It developed a harmonized incentive scale for different categories of health workers, which was approved in 2019 and known as the 2019 scale. It is used by over 30 development partners that participated in the 2019 incentive survey. However, the roughly 20 remaining partners continue to use different scales and metrics[34].

An overreliance on donor support threatens the sustainability of service provision in the health sector, while the fragmentation of incentive programs raises questions of sustainability, equitability, and efficiency. For multiple classes of healthcare worker, incentive payments exceed the standard government salary. One health worker can potentially receive a combination of different forms of payment, such as incentives, per diem, and hazard pay, and there currently is no comprehensive mechanism to clearly monitor or avoid multiple payments funded by different providers. Consequently, the retention of healthcare workers is highly dependent on the availability of donor funding, which is typically designed to offer short-term assistance, not to provide permanent financing for recurrent expenditures. Anecdotal evidence suggests that some healthcare workers have ceased delivering services when donor incentives were withdrawn, highlighting the risks posed by donor fatigue. Conversely, gaps in the coverage of incentive programs have led facilities to informally pool a portion of incentives paid to individuals working at their facility and redistribute them among volunteers and other ineligible workers. While verification remains a challenge, in some health facilities, anecdotal reports suggest that 20 percent of incentives are pooled and redistributed with health workers who do not receive incentive payments[35].

As the public sector has struggled to pay healthcare workers, private service providers have expanded, and emigration has increased. While private facilities offer better compensation, patients are left with few options for affordable public healthcare. Meanwhile, the nonpayment of salaries has reportedly accelerated emigration among specialized medical professionals, many of whom have relocated to neighboring countries. While the impact of “brain drain” in the health sector cannot be clearly measured, the emigration of skilled professionals can adversely affect the availability of health services, over both the short- and long-term.

---

[34] Health Cluster Yemen. 2019. Presentation “Yemen Health Cluster Incentive Survey (Draft)”; Health Cluster Yemen. 2020. Presentation “National Health Cluster Coordination Meeting”; Stakeholder interviews.

[35] Dureb et al. 2021. “Forms of Health System Fragmentation During Conflict: The Case of Yemen.” Frontiers in Public Health. July 12; Health Cluster Yemen. 2020. Minutes of Virtual Health Cluster Coordination Meeting Sana’a Yemen; stakeholder interviews.

LESSONS LEARNED AND POLICY OPTIONS

Over the medium term, policymakers and development partners should strive to ensure that incentives are delivered in a more harmonized, equitable, and sustainable manner.

Harmonization) To address the challenge of programmatic fragmentation, development partners must coordinate incentives and harmonize benefit levels relative to base pay within sectors. This is currently not a major issue in the education sector though it is a major challenge for the health sector. Aligning program coverage and benefits will require regular open dialogue among all development partners active in the health sector. This is an effort spearheaded by the Health Cluster as highlighted by its 2019 Financial Support Grid that intends to harmonize the health sector incentives approach through dialogue and coordination.

(Equity) To address the equitable distribution and coverage challenges, incentive payments should be made available to all those who are eligible, not just some. In the education sector, expanding the coverage of incentive programs and phasing out the use of the 2014 payroll as an eligibility criterion could improve the equity of donor engagement. While reducing payment levels could broaden the coverage of incentive programs without raising their total cost, implementing agencies must carefully weigh the advantages of improved programmatic equity against the risk that lower benefit amounts could diminish the morale of frontline service providers. Any changes to incentive payments should be harmonized across development partners.

(Sustainability) The available financing is inadequate to finance even a small portion of the 2014 payrolls in the education and health sectors. Financing from donor and development partner communities tend to be short-term as both ETI and RFTs have illustrated. In the medium- to long-run, financing sources will need to transition from short-term humanitarian assistance to a more long-term development approach with macrofiscal and institutional strengthening as well as capacity-building in mind. More work is needed to develop options and build consensus regarding what such a transition could look like in practice.

THE WORLD BANK
1818 H Street, NW
Washington, DC 20433