

# IRAN



# ECONOMIC MONITOR

Adapting to the new normal:  
A protracted pandemic  
and ongoing sanctions

Fall 2021



**WORLD BANK GROUP**  
Middle East and North Africa Region



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pandemic and ongoing sanctions

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# ABBREVIATIONS AND ACRONYMS

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CAB	Current account balance	m/m	Month-on-month
CBI	Central Bank of Iran	NDFI	National Development Fund of Iran
COVID-19	Corona Virus Disease 2019 (Novel Coronavirus)	NIMA	Unified system of foreign exchange transactions (Persian acronym)
CPI	Consumer price inflation	OPEC	Organization of Petroleum Exporting Countries
ER	Exchange rate	PBO	Plan and Budget Organization
ERPT	Exchange rate pass through	PMI	Purchasing Manager's Index
FX	Foreign e	PPP	Purchasing Power Parity
GDP	Gross domestic product	PRC	Parliament Research Center
ICCIMA	Iran Chamber of Commerce, Industries, Mines & Agriculture	RHS	Right-hand-side
IEM	Iran Economic Monitor	q/q	Quarter-on-quarter
IMF WEO	International Monetary Fund World Economic Outlook	SCI	Statistical Centre of Iran
IPI	Industrial Production Index	SOE	State-owned enterprise
IRICA	Islamic Republic of Iran Customs Administration	TEDPIX	Tehran Stock Exchange main index
IRR	Iranian Rial	TSE	Tehran Stock Exchange
kWh	Kilowatt-hour	US(A)	United States of America
LHS	Left-hand-side	US\$/USD	United States Dollar
mbpd	Million barrels per day	WB WDI	World Bank World Development Indicators database
MBRI	Monetary and Banking Research Institute	WHO	World Health Organization
MENA	Middle East and North Africa	y/y	Year-on-year





# PREFACE

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**T**he Iran Economic Monitor (IEM) provides an update on key economic developments and policies. It examines these economic developments and policies in a longer-term and global context, and assesses their implications for the outlook for the country. Its coverage has ranged from the macro-economy to financial markets to indicators of human welfare and development. It is intended for a wide audience, including policy makers, business leaders, financial market participants, and the community of analysts and professionals engaged on Iran.

The Iran Economic Monitor is a product of the World Bank's Global Practice for Macroeconomics, Trade and Investment (MTI) team within the Global Practice Group for Equitable Growth, Finance and Innovation (EFI). The ninth issue of the IEM was prepared by Majid Kazemi (Economist, Task

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# EXECUTIVE SUMMARY

**I**ran's economy is gradually recovering following a lost decade (2011–2020) of negligible economic growth. Less stringent COVID-19 restrictions, adaptation to the new normal—reflected in a recovery in consumption, and more favorable oil sector conditions have driven a four-quarter rebound after June 2020, albeit from a low base. The rebound was boosted by the rapid rollout of COVID-19 vaccines in the second half of 2021/22.<sup>1</sup> However, limited accessible foreign exchange reserves, due to ongoing US sanctions, have led to exchange rate volatility and a surge in inflation. The economic rebound has also been predominantly jobless which coupled with high inflation has translated to declining household welfare, especially among the bottom income deciles who were also disproportionately impacted by the pandemic. Meanwhile, adverse climate change events such as droughts and record temperatures have led to water shortages and energy blackouts which have brought the socio-economic urgency of these challenges to the fore.

**After exiting a two-year recession in 2020/21, Iran's economy returned to some growth in 2021/22.** The relaxation in cross-border trade, better oil market conditions and non-stringent COVID-19 related restrictions drove Iran's economic rebound in the first quarter of 2021/22 which was driven by oil and services. The impact of the COVID-19 pandemic on gross domestic product (GDP) growth

in 2020/21 was less pronounced compared to other countries due to less stringent COVID-19 restrictions, lower dependency on highly affected sectors such as tourism, oil recovery in the second half of 2020/21, and a relatively lower economic base after two consecutive years of economic contraction following the reimposition of US sanctions. Real GDP in 2020/21 was at the same level as a decade ago while the country forfeited the demographic window of opportunity (a highly educated young population) along with a period of high oil prices (2010–2014) and unemployment remained high at around 10 percent.

**The government fell short of meeting its budget targets in the first four months of 2021/22 but managed to keep the deficit close to 2020/21 (in percent of GDP).** Fiscal data for Apr-Aug 2021 shows that while budget targets including for oil revenues were not met, oil revenues nonetheless expanded from their record low levels (1.1 percent of GDP) in 2020/21. However, this met only 15 percent of the budget revenue for the period. In light of these, the government adjusted expenditures which helped keep the deficit-to-GDP ratio close to the 2020/21 rate. The fiscal deficit in Apr-Aug 2021 was primarily financed through bond issuance and withdrawal from the National Development Fund of Iran (NDFI) as planned

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<sup>1</sup> The Iranian calendar year starts on March 21 each year and ends on March 20 of the following year.

sales of asset did not materialize. Iran's relatively low level of public debt—which is predominantly from domestic sources—provides room for further debt issuance and help buffer some of the fiscal shocks.

**Inflation continued to surge in 2021/22 driven by inflationary expectations and further depreciation of the rial.** In the absence of an effective nominal anchor, inflation was driven by growing inflationary expectations which had been subdued after the US presidential elections and the start of nuclear talks. This trend reversed after the pause in nuclear talks in June 2021 leading inflation to rise to 43 percent year-on-year (y/y) in Apr–Nov 2021. The rial exchange rate against the dollar followed a similar trend to expectations but ultimately depreciated by 18 percent (y/y) over Apr–Nov 2021 as restricted access to foreign exchange reserves abroad limited the scope of direct interventions in the market. Government borrowing from the banking system and sales of foreign assets to the central bank also led to high money supply growth, thereby reinforcing higher prices. High inflation and the loss of real disposable incomes have worsened households' welfare. The pandemic also severely affected jobs and incomes in many labor-intensive activities, including high-contact services and the informal sector.

**The current account balance (CAB) turned positive in 2021/22 as a surge in both oil and non-oil exports outweighed the increase in imports.** The recovery after the pandemic led to a sharp increase in oil and non-oil exports by 125 and 69 percent in Apr–Jun 2021 (y/y), respectively. This led the CAB to register a surplus for the first time since the pandemic despite imports also growing by 42 percent during the same period. Other sources of external financing, namely foreign direct investment and portfolio investments also remained muted due to US financial sanctions, high inflation, and exchange rate volatility.

**Iran's economic outlook is affected by the COVID-19 pandemic and the demand prospects from key export partners.** Domestically, the initial slow response with regards to COVID-19 immunization in the face of the large Delta variant wave is expected to dampen growth due to the scarring effects of the pandemic and lingering threat of future waves of infection. Stricter COVID-19 containment measures aimed to contain the spread alongside shortfalls in attracting new investment, due to negative real interest rates, will be additional headwinds to growth in the outlook. Globally, slower growth in major trade partners such as China, together with ongoing US sanctions on exports is also projected to weigh down on growth in both oil and non-oil sectors. As such, average GDP growth is projected to be modest, at under 3 percent per annum, in the medium term.

**Major risks to Iran's economic outlook relate to the course of the pandemic and the prospects of geopolitical developments.** The emergence of more infectious and deadly new variants of COVID-19 and subsequent containment measures would pose a significant risk to the recovery in Iran's economy until full vaccination of a large share of the population is achieved. Trade disruptions and weaker demand from neighboring countries such as Afghanistan and Iraq, the main source of accessible foreign exchange reserves, would also prove as a major headwind for growth and financing imports. The economy also remains vulnerable, albeit less than in the past, to future downturns in global oil prices. The mounting climate change challenges resulting in more severe water and energy shortages together with high inflation could further increase pressures on the most vulnerable and add to social grievances. Upside risks relate to the possibility of sanctions relief which could boost economic activity, as the economy has chronically operated below potential capacity.



# چکیده مدیریتی

دولت در فصل اول سال 1400، نتوانست به اهداف بودجه خود دست یابد، اما توانست کسری بودجه (به نسبت تولید ناخالص داخلی) را نزدیک به کسری بودجه سال 1399 نگه دارد. داده‌های بودجه دولت از فروردین تا تیرماه 1400 نشان می‌دهد که هر چند اهداف بودجه از جمله اهداف درآمدهای نفتی محقق نشده است، با این وجود درآمدهای نفتی از سطح پایین بی‌سابقه خود (1/1 درصد از تولید ناخالص داخلی) در سال 1399 افزایش یافته است. با این حال، این میزان تنها 15 درصد از هدف درآمدهای نفتی بودجه برای این دوره را تأمین کرده است. از این‌رو، دولت با تعدیل هزینه‌ها، نسبت کسری بودجه به تولید ناخالص داخلی را در حدود سطح آن در سال 1399 حفظ کرده است. کسری بودجه در فروردین تا تیر 1400، عمدتاً از طریق انتشار اوراق بدهی دولتی و برداشت از صندوق توسعه ملی ایران تأمین شده است زیرا فروش برنامه‌ریزی شده دارایی‌های دولت محقق نشد. سطح نسبتاً پایین بدهی عمومی ایران—که عمدتاً از منابع داخلی است—فضا را برای صدور بدهی بیشتر فراهم آورده است که می‌تواند مانع بروز برخی شوک‌های بودجه‌ای شود.

تورم در سال 1400، به دنبال تدوam انتظارات تورمی و کاهش مجدد ارزش ریال، به افزایش خود ادامه داد. در غیاب یک لنگر اسمی مؤثر، رشد انتظارات تورمی منجر به افزایش تورم شد. روند کاهشی انتظارات تورمی که پس از انتخابات ریاست جمهوری آمریکا و آغاز مذاکرات هسته‌ای شروع شده بود، پس از توقف مذاکرات هسته‌ای در خرداد 1400 معکوس شد و باعث شد تورم در فروردین تا آبان 1400، به 43 درصد (نسبت به مدت مشابه سال قبل) افزایش یابد. نرخ برابری ریال در برابر دلار روندی مشابه با انتظارات تورمی را دنبال کرد، اما در نهایت کاهش ارزشی معادل 18 درصد (از فروردین تا آبان 1400) را تجربه کرد زیرا دسترسی محدود به ذخایر ارزی خارج از کشور، دامنه مداخلات مستقیم در بازار را محدود کرده است. استقرار دولت از سیستم بانکی و فروش دارایی‌های خارجی به بانک مرکزی نیز منجر به رشد بالای عرضه

اقتصاد ایران پس از سپری کردن یک دهه از دست‌رفته با رشد اقتصادی ناچیز (2011-2020)، به تدریج در حال بهبودی است. محدودیت‌های ملایم‌تر کووید-19، تطبیق با نرْم جدید (که در بهبود مصرف منعکس شده است)، همراه با شرایط مناسب‌تر در بخش نفت، منجر به چهار فصل پی‌درپی بهبود اقتصادی (هر چند از سطحی پایین) پس از فصل اول 1399 شده است. رونق اقتصادی با واکنش‌های گسترده کووید-19 در نیمه دوم سال 1400 تقویت شد. با این حال، محدودیت ذخایر ارزی قابل دسترس، به دلیل تداوم تحریم‌های آمریکا، منجر به نوسانات نرخ ارز و افزایش تورم شده است. این رونق اقتصادی که عمدتاً اشتغالزای نبوده است همراه با تورم بالا منجر به کاهش رفاه خانوارها شده است، به‌ویژه در میان دهک‌های پایین درآمدی که به طور نامتناسبی تحت تأثیر پاندمی قرار گرفته‌اند. در همین حال، اتفاقات ناگوار ناشی از تغییرات اقلیمی مانند خشکسالی و افزایش بی‌سابقه دما، منجر به کمبود آب و قطعی‌های برق شده که فوریت اجتماعی-اقتصادی این چالش‌ها را هر چه بیشتر آشکار می‌نماید.

پس از خروج از رکود دو ساله در سال 1399، اقتصاد ایران در سال 1400 میزانی رشد را تجربه کرد. کاهش موانع تجاری در تجارت خارجی، شرایط بهتر بازار نفت، و محدودیت‌های ملایم‌تر مرتبط با کووید-19 منجر به رشد اقتصادی ایران در سه ماهه اول 1400 شد که عمدتاً ناشی از بخش نفت و بخش خدمات بود. تأثیر پاندمی کووید-19 بر رشد تولید ناخالص داخلی در سال 1399 در مقایسه با سایر کشورها کمتر بود از جمله به دلیل محدودیت‌های کمتر سخت‌گیرانه‌تر کووید-19، وابستگی کمتر اقتصاد به بخش‌های بسیار آسیب‌پذیر مانند گردشگری، رونق نفت در نیمه دوم 1399، و نیز پایه اقتصادی نسبتاً پایین پس از دو سال متوالی رکود اقتصادی ناشی از تحریم‌های مجدد آمریکا. تولید ناخالص داخلی واقعی در سال 1399، در همان سطح یک دهه قبل بود، در حالی که کشور فرصت پنجره جمعیتی (جمعیت جوان با تحصیلات عالی) را همراه با یک دوره قیمت بالای نفت (2010-2014) پشت سر گذاشت و بیکاری در حد بالای حدود 10 درصد باقی ماند.

پول و در نهایت افزایش قیمت‌ها شد. تورم بالا و کاهش درآمدهای قابل تصرف واقعی، رفاه خانوارها را بدتر کرده است. پاندمی هم‌چنین مشاغل و درآمدها را در بسیاری از فعالیت‌های کاربرتر، از جمله خدمات پرتماس و بخش غیررسمی، به شدت تحت تأثیر قرار داده است.

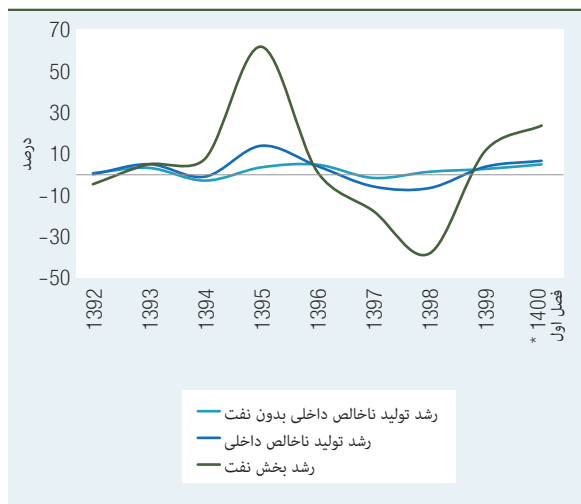
تراز حساب جاری در سال 1400 مثبت شد زیرا افزایش صادرات نفتی و غیرنفتی بیش از افزایش واردات بود. بهبود پس از پاندمی، منجر به افزایش شدید صادرات نفتی و غیرنفتی به ترتیب 125 و 69 درصد در فروردین تا خرداد 1400 (نسبت به مدت مشابه سال قبل) شد. این امر باعث شد که با وجود رشد 42 درصدی واردات در این دوره، تراز حساب جاری برای اولین بار از زمان شیوع پاندمی مثبت شود. سایر منابع تأمین مالی خارجی، مانند سرمایه‌گذاری مستقیم خارجی و سرمایه‌گذاری در سبد مالی نیز به دلیل تحریم‌های مالی آمریکا، تورم بالا، و نوسانات نرخ ارز تغییر عمده‌ای نداشتند.

چشم‌انداز اقتصادی ایران تحت تأثیر پاندمی کووید-19 و چشم‌انداز تقاضا از سوی شرکای اصلی صادراتی قرار دارد. از سمت داخلی، انتظار می‌رود که روند کند اولیه واکنش‌ناهیون کووید-19 در مواجهه با موج بزرگ سویه دلتا به علت اثرات ماندگار کووید-19 و خطر مجدد انتشار سویه‌های جدید، منجر به محدود شدن رشد شود. اقدامات سختگیرانه‌تر در راستای مهار کووید-19 با هدف جلوگیری از گسترش مجدد سویه‌های

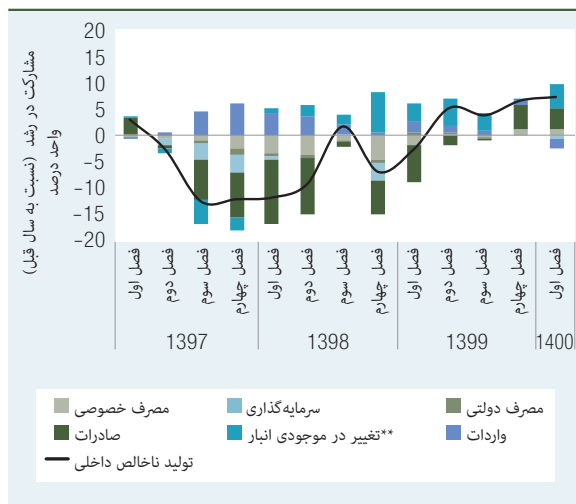
جدید، در کنار میزان اندک جذب سرمایه‌گذاری جدید، به دلیل نرخ‌های بهره واقعی منفی، موانع دیگر چشم‌انداز رشد اقتصادی خواهند بود. در سطح جهانی، رشد کندتر شرکای بزرگ تجاری مانند چین، همراه با تداوم تحریم‌های آمریکا بر صادرات، می‌تواند بر رشد بخش‌های نفتی و غیرنفتی تأثیر منفی بگذارد. به این ترتیب، میانگین رشد تولید ناخالص داخلی در میان‌مدت، متوسط و کمتر از 3 درصد در سال پیش‌بینی می‌شود.

خطرات عمده پیش‌روی اقتصاد ایران به روند گسترش پاندمی و چشم‌انداز تحولات ژئوپلیتیک مربوط می‌شود. تا زمانی که واکنش‌ناهیون کامل بخش عمده جمعیت محقق نشود، انتشار سویه‌های جدید و خطرناک کووید-19 و اقدامات مهارکننده متعاقب آن، ریسک‌های قابل‌توجهی در روند بهبود اقتصاد ایران خواهند بود. اختلالات تجاری و تقاضای ضعیف از سوی کشورهای همسایه مانند افغانستان و عراق، منبع اصلی ذخایر ارزی قابل دسترس، از موانع اصلی رشد و تأمین مالی واردات به شمار می‌روند. اقتصاد همچنان، هرچند کمتر از گذشته، در برابر افت قیمت جهانی نفت در آینده آسیب‌پذیر است. چالش‌های فزاینده تغییرات اقلیمی که منجر به کمبود شدیدتر آب و انرژی می‌شوند، همراه با تورم بالا می‌تواند فشار بر قشرهای آسیب‌پذیر را افزایش دهد و بر نارضایتی‌های اجتماعی بیفزاید. ریسک‌های مطلوب مربوط به امکان لغو تحریم‌ها است که می‌تواند فعالیت اقتصادی را تقویت کند، زیرا اقتصاد به طور مستمر کمتر از ظرفیت بالقوه خود در حال فعالیت است.

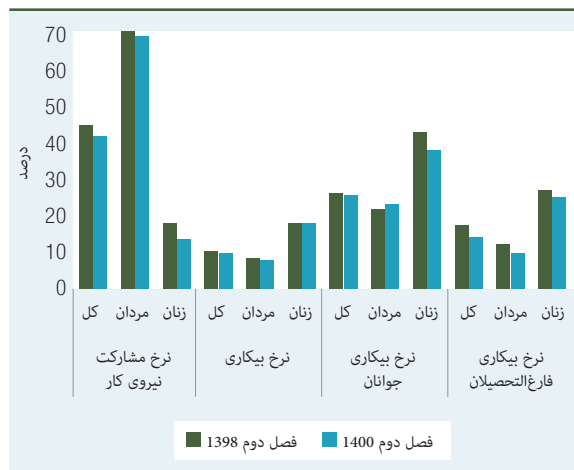
شکل 1 • اقتصاد ایران به تدریج در حال خروج از یک رکود دوساله است...



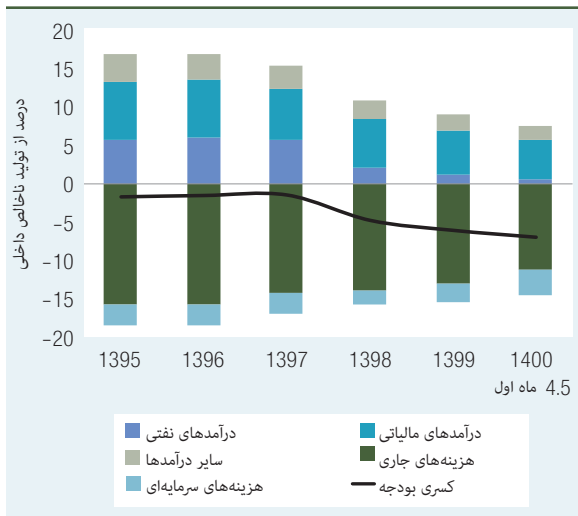
شکل 6 • ...هم راستا با تطبیق تقاضای داخلی و خارجی به شرایط جدید...



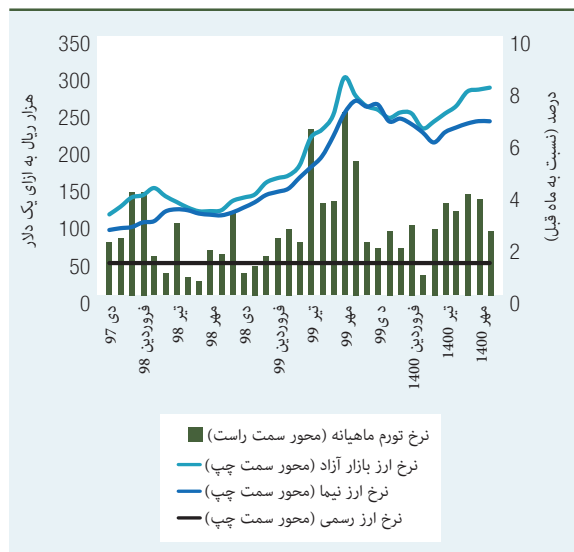
شکل 7 • ...ولی این بهبود تأثیر اندکی بر بهبود مشارکت نیروی کار داشته است...



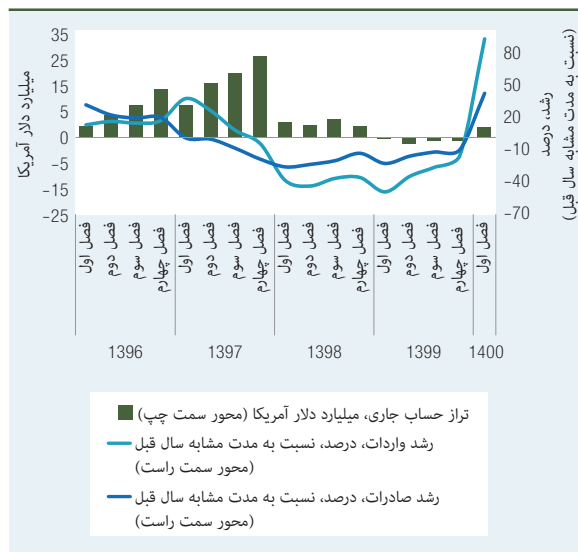
شکل 12 • ...در حالی که کسری بودجه افزایش یافته...



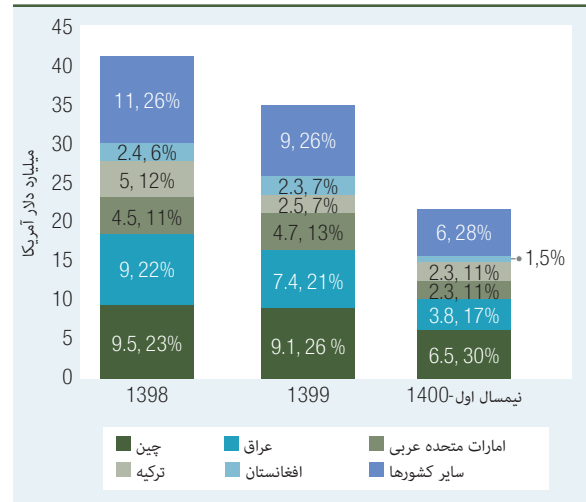
شکل 16 • ... که همراه با کاهش ارزش ریال و افزایش انتظارات تورمی باعث افزایش تورم شده‌اند



شکل 22 • در همین حال، رشد صادرات باعث ایجاد مزاد حساب جاری شده‌است...



شکل 24 • ... تا حدی به دلیل افزایش صادرات غیرنفتی به چین و کشورهای همسایه



(منبع شکل‌ها در متن اصلی).



# RECENT ECONOMIC AND POLICY DEVELOPMENTS

## Output and Demand

**After exiting a two-year recession in 2020/21, Iran's economy returned to growth in the first quarter of 2021/22 (Q1-21/22).** Iran's GDP grew by 6.2 percent in Q1-21/22 (y/y) (Apr–Jul 2021), driven by the expansion in oil and service sectors.<sup>2</sup> The economic rebound in Q1-21/22 came after the modest recovery in 2020/21 (3.4 percent, see Figure 1). The impact of the COVID-19 pandemic on GDP was less pronounced compared to other countries due to less stringent COVID-19 restrictions (despite facing multiple waves of infections, see Box 1), lower dependency on highly affected sectors such as tourism, oil recovery in H2-20/21, and a relatively lower economic base after two consecutive years of economic contraction following the reimposition of US sanctions. The recent rebound only marginally reduced the income gap between Iran and Middle East and North Africa (MENA) region which had been widening in previous years (Figure 2).

**Since mid-2020, oil production has grown steadily in line with the gradual pickup in global demand.** Oil GDP grew by 23.3 percent in Q1-21/22 (y/y) as global demand recovered and as Iran remained exempt from the recent Organization of Petroleum

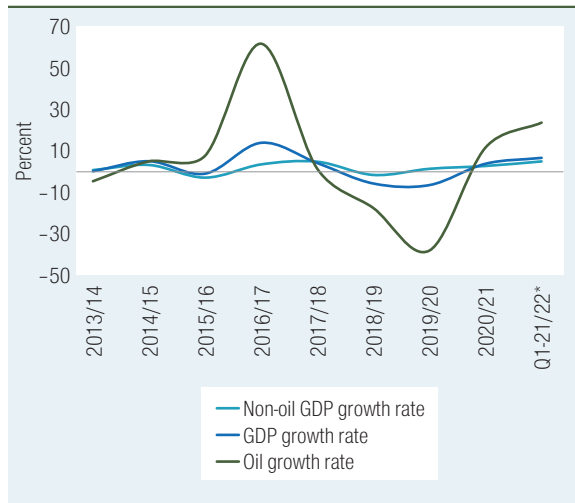
Exporting Countries (OPEC) production quotas. OPEC oil production data also puts Iran's oil production growth in the period at 25 percent (y/y) close to the reported oil GDP growth.<sup>3</sup> Oil production has continued an upward trend since July 2020 when it registered a record low of 1.93 million barrels per day (mbpd) due to the pandemic related slump in global oil demand and ongoing US sanctions. The average oil production in Jan–Nov 2021 was 2.4 mbpd, almost the same level in 2019, but still far below the pre-sanction level of 3.8 mbpd in 2017.

**The non-oil sector rebound in Q1-21/22 was primarily driven by the pickup in services and manufacturing activity.** Non-oil GDP grew by 4.7 percent (y/y) in Q1-21/22 as services rebounded by 7 percent (y/y) (Figure 3). The strong recovery of services is partly a reflection of the previous contraction in Q1-20/21 and a gradual adaptation of households to the new normal (for example, reflected

<sup>2</sup> The Q1-21/22 data is based on the Central Bank of Iran's new GDP series with a new base year (2016/17) and updated national accounts methodology. See Box 1 for a brief comparison of the CBI GDP series.

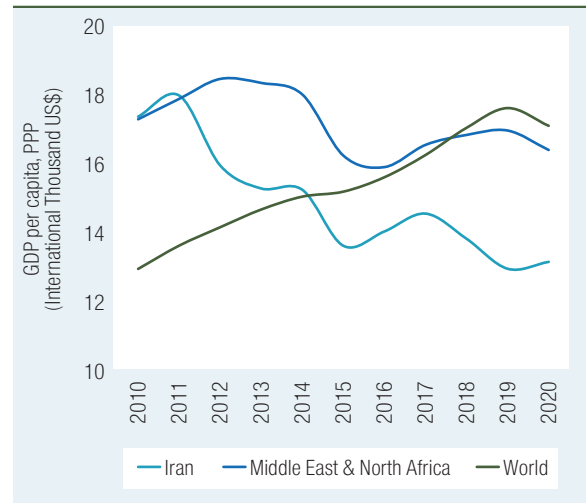
<sup>3</sup> As reported by OPEC's secondary sources. Iran has stopped publishing crude oil production and export volumes data since the reimposition of US sanctions in 2018.

**FIGURE 1 • GDP Rebounded in 2020/21 and Q1-21/22...**



Source: Central Bank of Iran (CBI) and World Bank staff calculations.  
 Note: \* Based on the CBI's new base year series (2016/17=100).

**FIGURE 2 • ...Partially Reducing Iran's Income\* Gap with Peers**



Source: World Bank World Development Indicators (WDI).  
 Note: \* Measured by GDP per capita, PPP (current international US\$).

in 29 percent y/y growth in food and accommodation services). Within the non-oil industrial sector, less market competition—due to import restrictions on non-essential goods—and the price competitiveness of manufacturing and mining production—following the currency depreciation—contributed to the two sectors' growth of 5.7 and 6.3 percent in Q1-21/22 (y/y), respectively. However, this growth was partly offset by a large contraction in construction (12.3 percent) due to a surge in the price of construction materials (100 percent increase in Q1-21/22, y/y), while at the same time, soaring housing prices (57 percent growth, y/y) weakened demand deeming ownership an unviable option for many young families.

**Similar to other countries in the region, Iran is facing the driest year in five decades which has negatively impacted the agriculture sector and has exacerbated water scarcity.** The sector contracted by 1 percent in Q1-21/22 (y/y) due to an unprecedented drought. The impact of the drought was partly mitigated by lowering outflows from dams and increased extraction from finite groundwater reserves. However, average rainfall in Sep-2020 to Sep-2021 (156 mm) declined by 50 percent and was 34 percent below the country's long-term average (238 mm) which made this year one of the driest in half a century (Figure 4). Currently, one-third of the population lives in water-stressed areas mostly in

central and southern regions. More than three-quarters of Iran's land is under extreme groundwater overdraft, where the rate of natural replenishment is lower than the rate of extraction.<sup>4</sup> This makes water security and climate change among the top challenges in the coming years with potentially dire consequences for agricultural production and food security. These climate challenges have already weighed on key staples' production, including wheat which witnessed a 30 percent drop (y/y) in production in H1-21/22 (Apr–Sep 2021) due to higher temperatures and water shortage.

**Electricity blackouts during the summer of 2021 disrupted the industrial sector and normal daily life in major cities.** In 5M-20/21 (Apr–Aug 2021), electricity consumption during peak hours surged by more than 20 percent (y/y) owing to record high temperatures in the summer<sup>5</sup> and surges

<sup>4</sup> Ashraf, S., Nazemi, A., and A. AghaKouchak (2021). Anthropogenic drought dominates groundwater depletion in Iran. *Scientific reports*, 11(1), 1–10.

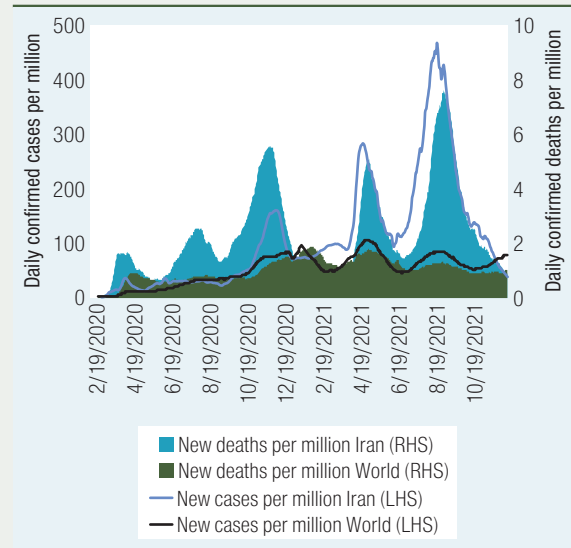
<sup>5</sup> The spring and summer of 2021 were also the hottest in fifty years. The average temperature in Spring and Summer 2021 was 2.5 and 1.2 Celsius above the long-term average and, all provinces of the country experienced average temperatures greater than the long-term average (Iran Meteorological Organization, Quarterly Reports).

## BOX 1 IRAN GRAPPLED WITH FIVE WAVES OF COVID-19 INFECTIONS

**Iran continues to face the large health impact of the COVID-19 pandemic but the recent acceleration in vaccination has improved the situation.** Iran has experienced the worst outbreak in the MENA region with over 6.2 million officially confirmed cases of infections and 131 thousand deaths as of Dec. 10, 2021. Since first cases were confirmed in February 2020, the country underwent five major waves of infection (Figure B1.1). The most severe surge, registering the highest single-day infections (50K) and deaths (709), came with the spread of the Delta variant in August 2021. This trend improved after the implementation of the containment measures and accelerated vaccine rollout in Sep-Dec 2021 (Figure B1.2). The majority of administered vaccines were the Chinese Sinopharm (80 percent) followed by AstraZeneca which were mainly financed through existing funds abroad.

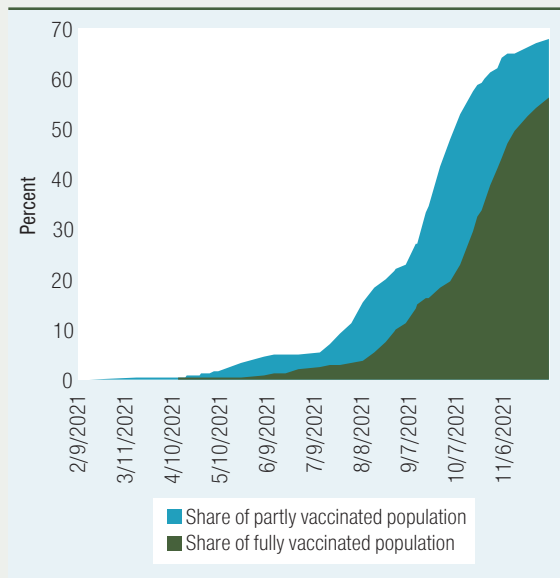
The country remains vulnerable to potential future waves of COVID-19, though the recent successful vaccination drive will help mitigate some of this risk. As of December 10, 2021, 57 percent of people in Iran were fully vaccinated, comparable to many neighboring countries (Figure B1.3). However, A sudden easing of containment measures could still lead to future waves of COVID-19 breakthrough cases associated with new variants that are more virulent.

**FIGURE B1.1 • Iran Underwent five waves of the COVID-19 pandemic (as of Dec. 10, 2021)**



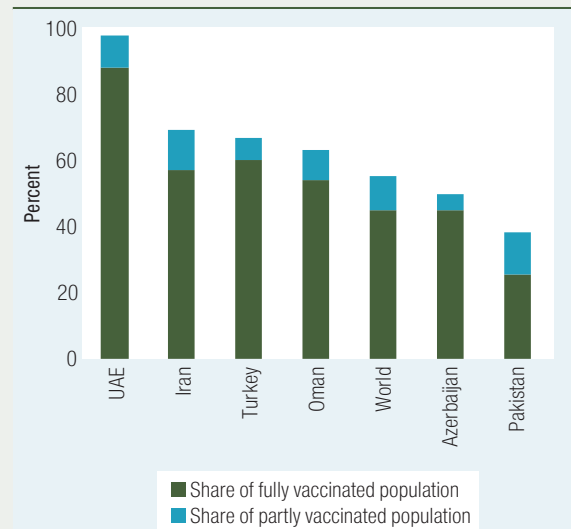
Source: Our World in Data.

**FIGURE B1.2 • Vaccination accelerated significantly in Sep-Dec 2021...**



Source: Our World in Data.

**FIGURE B1.3 • ... Bringing the Share of Fully Vaccinated People in Line with Neighboring Countries (as of Dec. 10, 2021)**

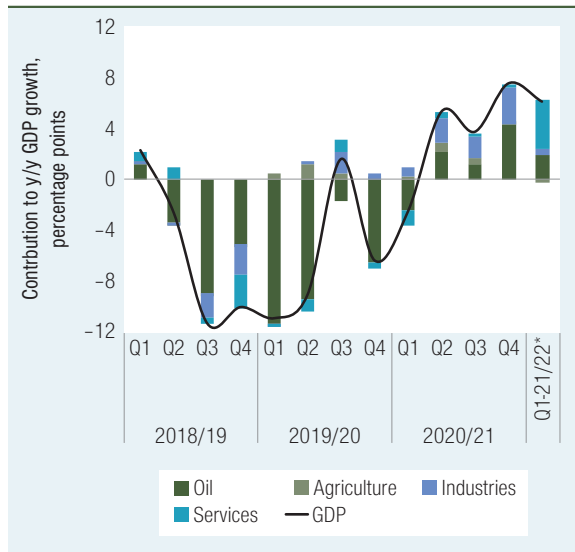


Source: Our World in Data.

in energy-intensive crypto-currency mining activity<sup>6</sup>, while at the same time the sharp decline in rainfalls reduced hydropower output by 40 percent. This led

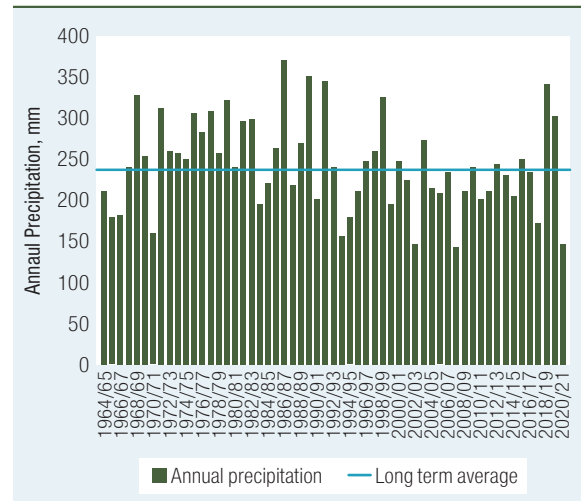
<sup>6</sup> It is estimated that around 4.5 percent of the world's bitcoin mining takes place in Iran which could bring close to US\$1 billion a year (Reuters).

**FIGURE 3 • Services and Oil Drove the Q1-21/22 Rebound**



Source: CBI and World Bank staff calculations.  
Notes: \* Based on CBI's new base year series (2016/17=100).

**FIGURE 4 • Iran Faced the Driest Year in Half-a-Century**



Source: Irda.ir and Asakereh et al. (2021).<sup>a</sup>  
<sup>a</sup> Asakereh, H., Masoodian, S. A., & Tarkarani, F. (2021). An investigation of Decadal variation of Iran precipitation over four decades (1976–2016). *Geography and Planning*, 25(76), 187–202.

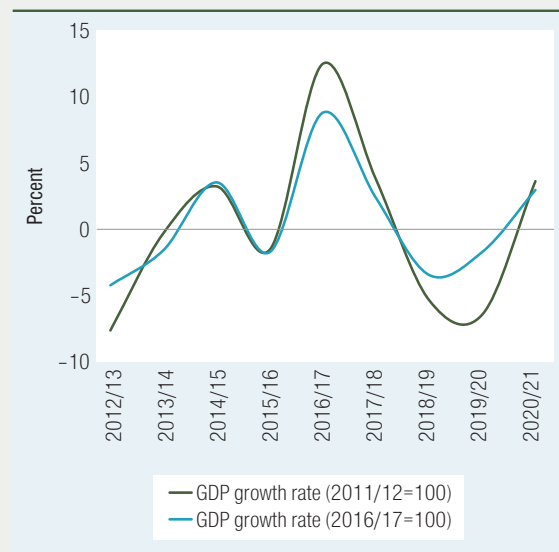
## BOX 2 A COMPARISON OF THE NEW CBI GDP SERIES

**The CBI has released a new national account data series based on a new base year (2016/17) and an updated methodology (System of National Accounts, SNA 2008).** The CBI's previous national accounts data was based on the base year of 2011/12 and the SNA 1993 methodology. The SNA 2008 methodology includes an expansion of subcomponents of economic activity from 16 to 19 categories based on the ISIC4 classification of economic activities. The change in the base year also reflects changes in weights of sectors in underlying surveys in line with the change in the structure of the economy between the two periods.<sup>a</sup>

**The update has generated some discrepancies between the two series historical data including an upward revision to the GDP level** (e.g., 12 percent higher nominal GDP in 2020/21) and different real GDP growth rates. For example, while based on the previous data (2011/12=100) the economy contracted by about 12 percent over the latest two years, the new data (2016/17=100) indicates a smaller contraction at just under 5 percent (Figure B2.1). On the supply side, the main discrepancy in growth rate of components relates to the oil sector (Figure B2.2) and on the expenditure side, the main difference is regarding investment and change in inventories data (Figure B2.3).

**The main change in the composition of GDP according to the new series is a relatively lower share for services on the supply side and lower total trade (exports and imports) on the demand side.** As a result, the relative contributions of components show significant differences between drivers of growth in these two series in certain years.

**FIGURE B2.1 • GDP Growth Rates in 2011/12 vs. 2016/17**

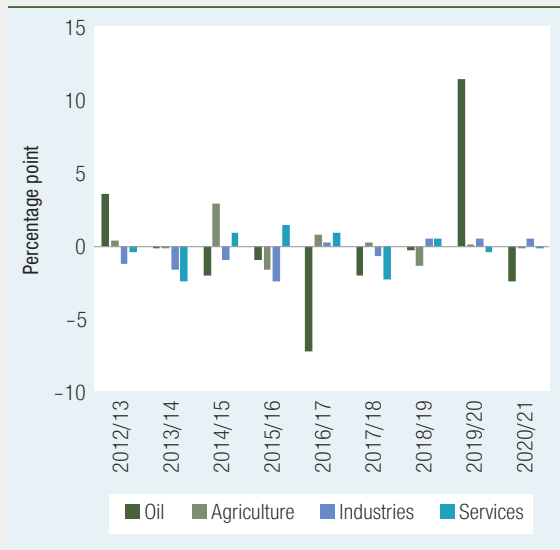


Source: CBI and World Bank staff calculations.

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## BOX 2 A COMPARISON OF THE NEW CBI GDP SERIES *(continued)*

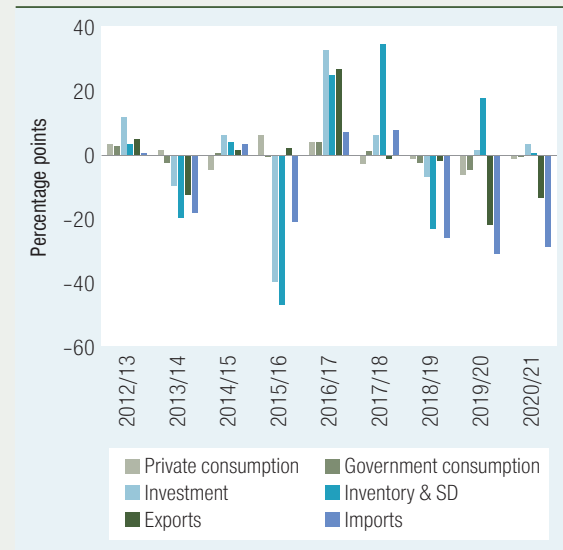
**FIGURE B2.2 • Difference in Growth Rates of Supply Side GDP Components, 2011/12 vs. 2016/17**



Source: CBI and World Bank staff calculations.

Note: Positive values show a higher growth rate of a given component in the new series and vice versa.

**FIGURE B2.3 • Difference in Growth Rates of Demand Side GDP Components, 2011/12 vs. 2016/17**



Source: CBI and World Bank staff calculations.

<sup>a</sup> Annex of the SNA 2008 volume summarizes changes between SNA 1993 and SNA 2008 as follows: “further specifications of statistical units and revisions in institutional sectoring; further specifications of the scope of transactions including the production boundary; extension and further specification of the concept of assets, capital formation, and consumption of fixed capital (CFC); further refinement of treatment and definition of financial instruments and assets; further specifications of the scope of transactions concerning government and public sector; and harmonization between concepts and classifications of SNA and the six edition of Balance of Payment Statistics (BPM6)”.

to a sharp reduction in electricity exports and major blackouts, disrupting operations in many industries. Temporary measures employed, including electricity supply rationing and a four-month ban on the mining of crypto-currencies were stop-gap measures to alleviate the severe electricity shortage. The electricity outages especially disrupted operations in energy-intensive industrial sectors forcing some producers to temporarily halt production which led to a decline in Purchasing Manager’s Index (PMI) in July and August which subsequently recovered in September as new COVID-19 cases started declining (Figure 5).

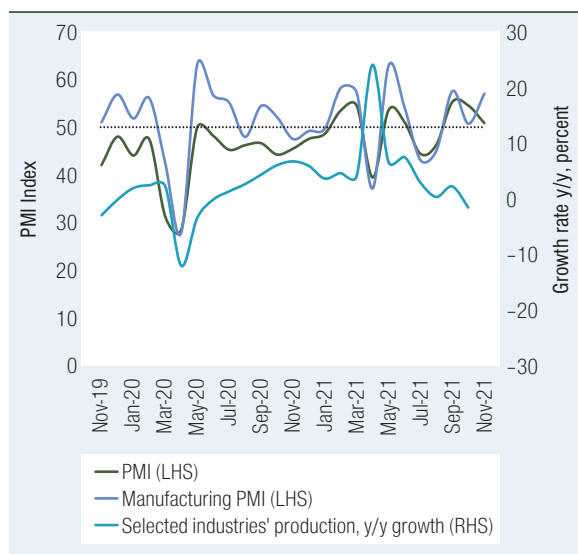
**On the demand side, exports and inventory growth were the main drivers of Q1-21/22 output performance (Figure 6).** Real exports and imports strongly rebounded in Q1-21/22 growing by 35 percent and 30 percent (y/y), respectively, mainly

due to the lower base effect of plummeting trade after border closures at the onset of the pandemic in Q1-20/21. The strong growth in inventories in the period came due to the anticipation of a breakthrough in negotiations for sanctions relief as Iran and the US started indirect talks around the revival of the 2015 nuclear agreement. Private consumption also grew moderately by 2.2 percent in Q1-21/22 (y/y) after experiencing a 10.7 percent contraction over the last three years. However, investment declined by 3.5 percent in Q1-21/22 (y/y), largely driven by a contraction in construction investment.

### Labor Market and Jobs

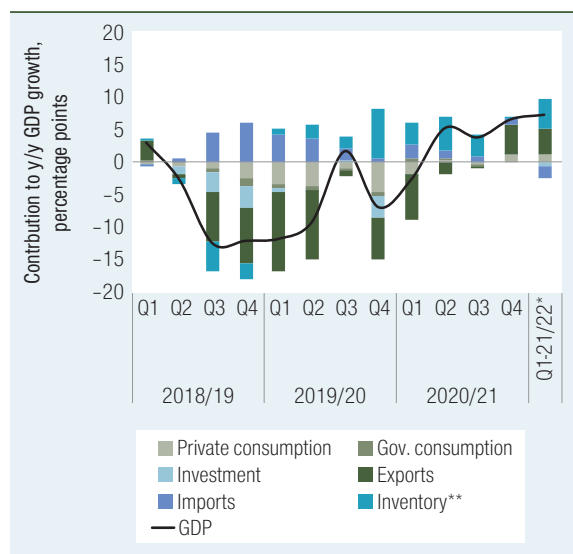
**The recent GDP rebound has yet to be reflected in (structurally weak) labor market indicators as the expansion was partly driven by the**

**FIGURE 5 • Electricity and Water Shortages Impacted Industrial Production in Summer 2021**



Source: Iran Chamber of Commerce, Industries, Mines & Agriculture (ICCIMA) and Monetary and Banking Research Institute (MBRI).  
 Note: A PMI index above 50 shows an improving outlook from the point of view of producers/managers.

**FIGURE 6 • The Rebound in GDP in Q1-21/22 Was Driven by Exports on the Expenditure Side**



Source: CBI and World Bank staff calculations.  
 Notes: \* Based on the CBI's new base year series (2016/17=100).  
 \*\* Includes statistical discrepancy.

**capital-intensive oil sector.** In Q2-21/22 (Jul–Sep 2021), there were almost 0.137 million fewer Iranians employed compared to Q2-20/21 and employment remained 1.3 million below the pre-pandemic level in Q2-19/20. The recent rebound in the economy also came with negative dynamics in the labor-intensive (but drought affected) agriculture sector. Higher employment in the service and industry sectors in Q2-21/22 (y/y) could not compensate job losses in the agriculture sector. In addition, the underemployment ratio also increased by 0.2 percentage points to reach 9.5 percent in Q-21/22 (y/y). Despite an additional 0.7 million people entering the working-age population in Q2-21/22 (y/y), the labor force participation rate declined by 0.6 percentage points in Q2-21/22 compared to Q2-20/21 to reach 41.4 percent; this level is significantly below the pre-pandemic level of 44.9 percent in Q2-19/20—a level that is low by international standards. Even with this lower effective demand for jobs, the unemployment rate slightly increased to 9.6 percent in the same period. Youth unemployment also increased by 2.4 percentage points to 17.6 percent but the rate for university graduates declined by 0.5 percentage points to 14.4

percent in Q2-21/22. The latter group still accounted for 40.6 percent of unemployed population.

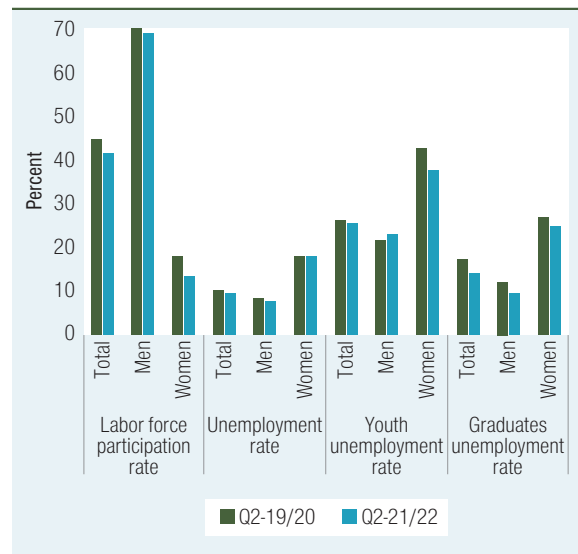
**Existing labor market inequalities further widened during the pandemic.** Similar to other countries, the pandemic's negative impact on labor force indicators was stronger for women due to the large impact on services where a larger portion of females (57 percent) work compared to men (47 percent).<sup>7</sup> In addition, lockdowns and school closures led women to exit the labor force to shoulder the additional childcare responsibilities. As a result, female employment shrank by 21 percent compared to pre-crisis level in Q2-19/20 while male employment reduced by only 2.1 percent during the same period. Female labor participation also declined by 4.1 percentage points to 13.5 percent in Q2-21/22 compared to the pre-pandemic level of 17.6 in Q2-19/20, while participation of males contracted from 72.2 percent to 68.5 percent. Even with a much lower participation rate, the female unemployment rate

<sup>7</sup> See, <https://blogs.worldbank.org/jobs/how-covid-19-affecting-womens-employment-evidence-world-banks-gender-innovation-labs>.

of 17.7 percent in Q2-21/22 was twice as large as for men (at 8.1 percent), highlighting obstacles facing the female jobseekers. The unemployment rate gender gap is even wider among the youth and educated (Figure 7). In Q2-21/22, 25 percent of women with university degrees were unemployed while this number was 9.7 percent for male graduates. In the same period, the unemployment rate of female youth (15–24 years) was 31 percent rate versus that of male by 14.4 percent.

**Labor market outcomes vary considerably across the country and the effects of the pandemic were also felt differently (Figure 8).** In Q2-21/22, the lowest labor employment ratio belonged to Sistan and Baluchestan with 29.7 percent and the highest to Zanjan with 43.7 percent. The unemployment rate also ranged between 6.2 percent in Qazvin to 18.3 percent in Hormozgan. In the same period, labor force participation rate in Iran’s provinces ranged between 33.4 percent (Sistan and Balochestan) to 48.5 (Yazd). Importantly, the effect of the pandemic also varied among all provinces. More than 60 percent of provinces experienced more than 3 percentage points decline in their employment ratio compared to pre-crisis level in Q2-19/20, where 5 out of 32 provinces (15 percent) reported declines above 5 percentage points. Hormozgan’s unemployment rate surged to

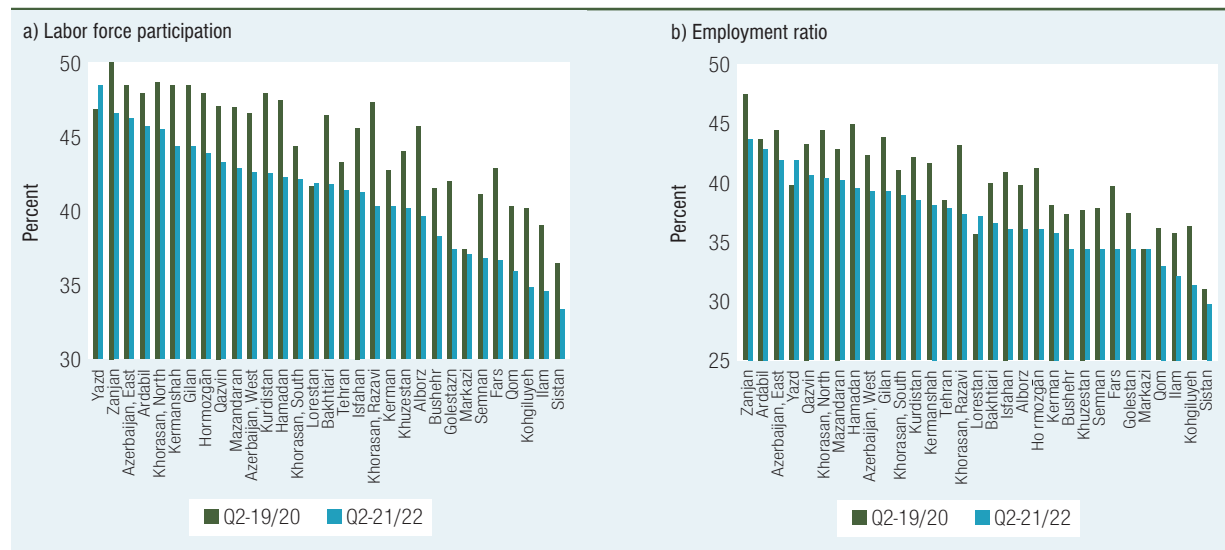
**FIGURE 7 • The Pandemic Drove Economic Participation Down Further**



Source: Statistical Centre of Iran (SCI) and World Bank staff calculations.

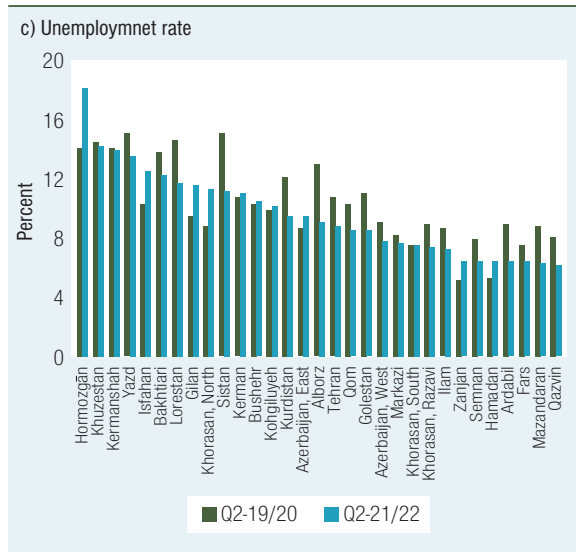
18.3 percent in Q2-21/22, (4.1 percentage points increase from the pre-pandemic level in Q2-19/20) even with a 4-pp decline in its labor force participation rate during the same period, mainly due to water shortage and protests in Q2-21/21. These variations highlight the need for a local approach to job creation and poverty alleviation policies by the government.

**FIGURE 8 • The Labor Market Effects of the Pandemic Were Felt Differently across the Country**



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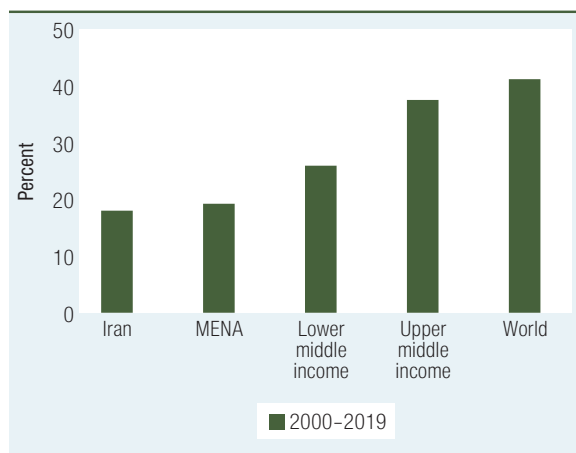
**FIGURE 8 • The Labor Market Effects of the Pandemic Were Felt Differently across the Country** (continued)



Source: SCI and World Bank staff calculations.

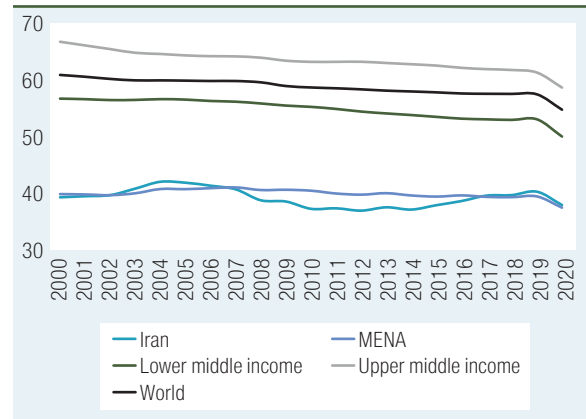
**Iran's labor market challenges are structural and have persisted over the long term.** Over the last few decades, even with an exceptionally low participation rate (averaged 42 percent), the unemployment rate has consistently been at or above the double-digit mark while underemployment was also high at 10 percent on average. This resulted in a substantially low employment to population ratio of an average of about 40 percent, one of the lowest rates in the world (Figure 9). The

**FIGURE 10 • ...and One of the Lowest Female Labor Participation Rates**



Source: WDI.

**FIGURE 9 • The Employment Ratio has been Persistently Low in Iran Despite Having a Young Population...**



Source: WDI.

labor force participation of females is only comparable to countries in the MENA region, and it is far below the average in the world and even lower-middle-income countries (Figure 10). Thus, these structural challenges were worsened with the pandemic.

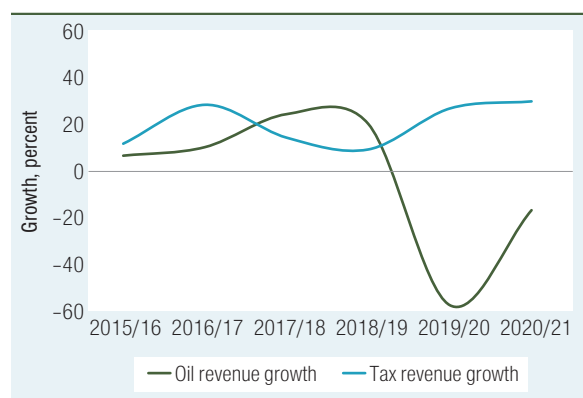
## Public Sector Finance

**The sharp decline in oil revenues in 2020/21 placed a significant pressure on government finances.**<sup>8</sup> In 2020/21, revenues fell to 9 percent of GDP due to oil revenues falling by 17 percent (nominal) to 1.1 percent of GDP (the lowest in recorded history) and tax revenues as a share of GDP declining to 5.9 percent (Figure 11 and Figure 12). However, tax revenue level met the budget target despite weak economic growth, mainly due to higher inflation and better collection including stock exchange transaction tax. The expenditures to GDP ratio remained stable at 15.4 percent. This brought the fiscal deficit to 6.3 percent of GDP which was mainly financed through bond issuance (70 percent), followed by sales of assets (13 percent) and withdrawals from strategic reserves (10 percent).

<sup>8</sup> The authorities have ceased to systematically publish Iran's fiscal data since the return of US sanctions in 2018. Data used here are based on those quoted by officials in the media and other ad-hoc reports including from the Parliament Research Center.



**FIGURE 11 • Oil Revenues Have Plummeted to Historic Lows...**

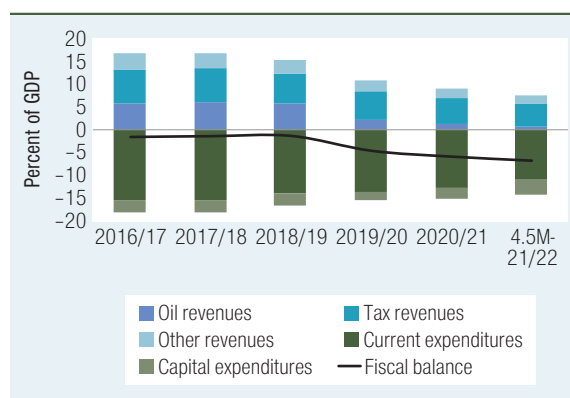


Source: CBI, PBO, and World Bank staff calculations.

**Fiscal data for 2021/22 shows that the government fell short of its budget targets but it has succeeded in keeping the deficit close to that of 2020/21 rate.** The 2021/22 budget targets were based on highly optimistic projections of an increase in oil revenue, tax revenues, and financial asset sales.<sup>9</sup> The global oil market recovery contributed to a significant growth in oil revenues (446 percent, y/y) in 4.5M-21/22, however, this was only 15 percent of the budget target for the period. In the same period, tax revenues grew by 63 percent but were 24 percent below target.<sup>10</sup> Faced with these revenue shortfalls, the government adjusted current expenditures to reduce the deficit. As such, current expenditures were at 60 percent of the budget plan, though 92 percent of planned capital expenditures in 4.5M-21/22 materialized. However, the new government faces the challenge of additional expenditures after upward adjustments to public sector wages and pension payments were approved to counter the impact of high inflation.

**The fiscal deficit was financed mainly through bond issuance and withdrawal from the National Development Fund of Iran (NDFI).** More than half of the deficit in 4.5M-21/22 was financed by bond issuance (50 percent) and withdrawal from NDFI (9 percent). The government also exhausted the funds of its revolving fund for the year<sup>11</sup> in Q1-21/22 as planned sales of public assets were negligible. This is in contrast to the budget plan, where the deficit was to be financed based on sales of assets (60 percent), bond issuance (32 percent), and withdrawals from NDFI (8 percent).

**FIGURE 12 • ...Leading to a Widening Fiscal Deficit**



Source: CBI, PBO, PRC, and World Bank staff calculations.

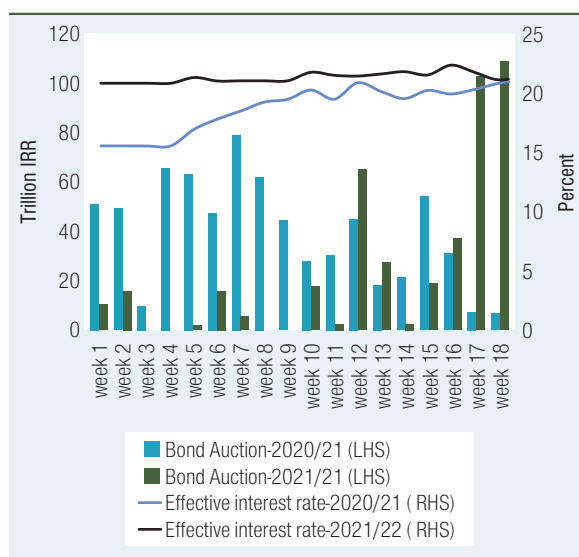
**The government continued bond auctions held by the CBI to finance the fiscal deficit.** The bond auctions were less successful (40 percent lower in Apr-Sep 2021, y/y) despite higher offered interest rates on bonds (though still negative) (Figure 13), due to heightened economic uncertainties even with comparable nominal interest rate relative to other assets (Figure 14). Therefore, in September 2021, the

<sup>9</sup> The 2021/22 budget law envisaged a 58 percent expansion compared to the previous year's budget. However, the budget could be 124 percent higher than 2020/21 if revenues meet their target in the first six-months (Apr-Sep 2021). Realization numbers quoted are based on the second higher budget ceiling.

<sup>10</sup> Tax revenues also fell short of the budget target in Q1-21/22. Direct and indirect tax revenue met about 70 and 79 percent of their budget targets, respectively. The increase in corporate tax by 48 percent in Q1-21/22 (y/y) was compensated by an 8.6 decline in income tax and a 66.6 decline in the wealth tax, resulting in 0.5 percent growth indirect tax in Q1-21/22 (y/y). The large decline in wealth tax was largely due to the decline in the stock market transactions which was the main contributor to the wealth tax growth in 2020/21. The economic rebound contributed to a 38 percent increase in goods and services taxes in Q1-21/22 (y/y), but these taxes were still 20 percent below the target.

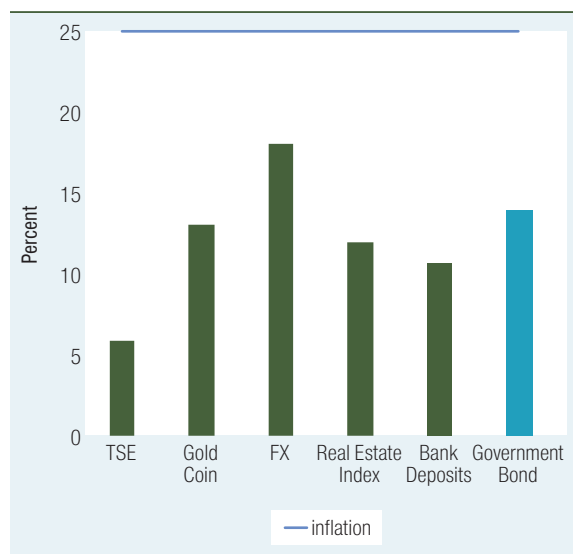
<sup>11</sup> The revolving fund is an annual designated proportion of the budget used by the government to clear current expenditures and must be cleared at the end of each year. In June 2021, the revolving fund share was increased from 3 percent to 4 percent to help the government clear current payments.

**FIGURE 13 • Bond Issuance through Auctions Was Significantly Lower than 2020/21...**



Source: CBI and World Bank staff calculations.  
 Note: Week 1-Week 18 refers to the period between May to September of each year.

**FIGURE 14 • ... Even with Comparable Nominal Return Compared to other Assets in 8M-21/22**



Source: CBI, SCI, TSE, media, and World Bank staff calculations.

government issued more bonds with shorter maturity (between 6 to 16 months) that helped it improve bond sales. The majority of bonds were bought by banks and financial institutions which are required to maintain a defined share of government bonds on loans. The high real negative interest rate (e.g., -22 percent in September 2021) makes investment in these bonds less attractive for private investors thereby restricting the depth of the market. The government, however, stopped holding auction of bonds since late September 2021 until mid-November 2021.

**Urgent fiscal reforms, starting with the massive subsidies, are needed to rein in the widening fiscal deficit and the resulting inflationary effects.** Besides rationalizing expenditures and proceeding with tax reforms, moving towards a gradual reduction in energy subsidies is crucial. According to the Parliament’s 2020/21 budget execution report, implicit subsidies in 2020/21 accounted for more than 45 percent of GDP (2.5 times of the budget). These subsidies were mainly due to natural gas (60 percent), which not only put a huge burden on government but has also led to over-consumption.<sup>12</sup> The remaining implicit subsidies were those for other petroleum products and aviation fuel (25 percent), essential goods (13 percent)

and electricity and water (2 percent). Although the Government of Iran implemented an ambitious “targeted subsidy reform plan” in 2010,<sup>13</sup> the benefits did not come to full fruition due to shortcoming in the design (e.g., lack of automatic price adjustment mechanisms) and implementation stages. The burden of implicit subsidies has only increased in recent years, as high inflation reduces the real price of the energy and leads to more consumption. The resulting tight fiscal space has therefore come at the cost of the government being able to implement countercyclical fiscal policy especially during downturns such as the pandemic.

**Iran’s comparatively low level of public debt and substantial oil wealth provides the country with some leeway in absorbing domestic and external shocks.** Iran’s public debt-to GDP ratio estimated at 52 percent in 2020/21 remains modest

<sup>12</sup> Iran ranks fourth in natural gas consumption in the world after the US, Russia, and China (Statistica). The opportunity cost of this overconsumption has risen further with the recent surge in global gas prices.

<sup>13</sup> This subsidy reform plan aimed to partially reduce subsidies on energy which was supported with a universal cash transfer program.

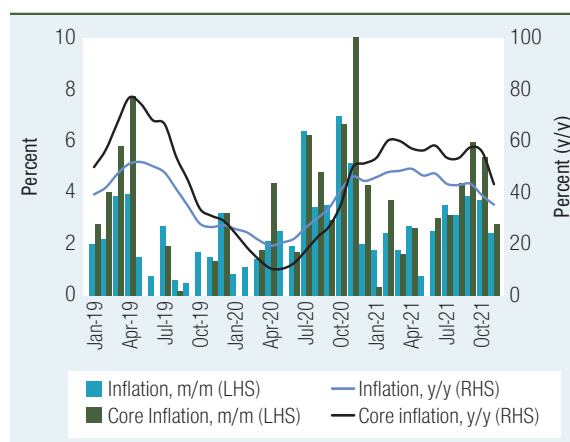
compared to MENA and developing country averages and predominantly consists of domestic debt.<sup>14</sup> This has helped mitigate a larger potential impact of economic downturns on fiscal accounts and leaves space for government to respond to revenue shortfalls through further debt issuance. However, further issuance should be calibrated to avoid adding to the challenges of existing debtors including pension funds.<sup>15</sup> Furthermore, Iran's oil and gas endowment—fourth and second largest in the world, respectively—leave options for the government to face shorter term challenges and revenue shortfalls.

## Monetary Policy and Prices

**Inflation continued to surge in 8M-21/22 (Apr–Nov 2021) due to inflationary expectations and cost-push factors.** Consumer price inflation (CPI) reached 43.3 percent in 8M-21/22 (y/y) as monthly inflation continued to increase in November 2021 (2.5 percent, m/m). A higher core inflation rate since late-2020 signals the non-transitory and structural component of price increases (Figure 15). In the absence of an effective nominal anchor, inflation was driven by growing inflationary expectations which had been subdued after the US presidential elections in November 2020 and the start of nuclear talks. This trend reversed after the pause in nuclear talks in June 2021 following the change of government in Iran.

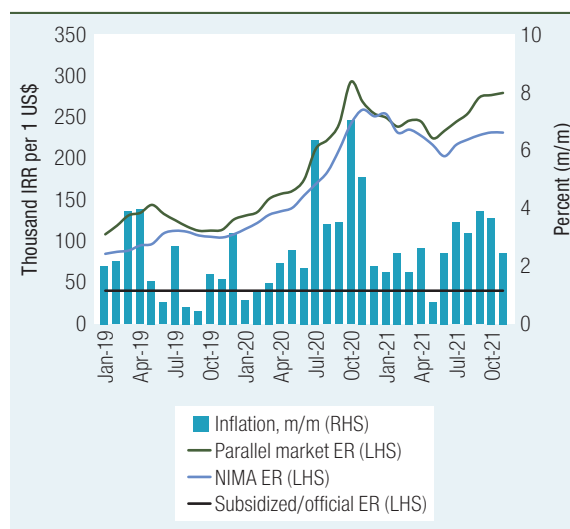
**Speculations regarding possible breakthroughs in CBI's access to frozen assets led the rial through an initial wave of appreciation in 2021 but this trend reversed since May 2021.** The rial appreciated by about 8 percent in Apr–May 2021, after progress in nuclear talks. However, this trend reversed following the pause in negotiations and increasing regional uncertainties which led the rial to depreciate by over 18 percent in 8M-21/22 while the gap between the parallel market exchange rate and NIMA rate widened.<sup>16</sup> The rial had also previously depreciated by 65 percent in the parallel market in 2020/21 (Figure 16). The decline in the value of the currency drove up prices of imported final goods and services as well as goods with imported content (See Box 2 on the exchange rate pass through).

**FIGURE 15 • Inflationary Expectations Drove Higher Inflation...**



Source: SCl and World Bank staff calculations.

**FIGURE 16 • ...and as the Rial Depreciated Further in 2021/22**



Source: CBI, SCl, and World Bank staff calculations.

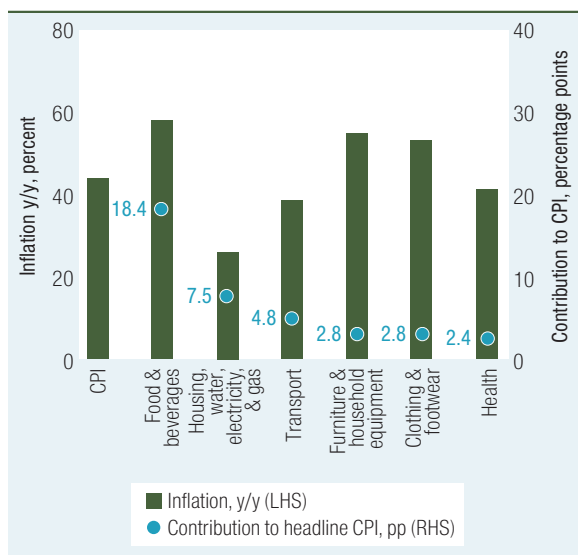
Note: NIMA, the Persian acronym for “integrated system of foreign exchange transactions”, is a foreign exchange (FX) auction system administered by the CBI for facilitating foreign currency exchange between exporters and importers.

<sup>14</sup> Iran's total external debt as of end-June 2021 was US\$8.7 billion.

<sup>15</sup> The low returns and arrears on government debt taken on by pension funds have further undermined their financial sustainability (see the IEM Spring 2017 special focus chapter on pensions) thereby increasing contingent liability risks for the government.

<sup>16</sup> Launched in April 2018, NIMA is a foreign exchange auction system administered by the CBI for facilitating foreign currency exchange between exporters and importers. The other two exchange rates are the fixed subsidized rate for imports of essential goods and the parallel market rate for cash transactions.

**FIGURE 17 • Food and Beverages Were the Main Contributors to Inflation in 8M-21/22**

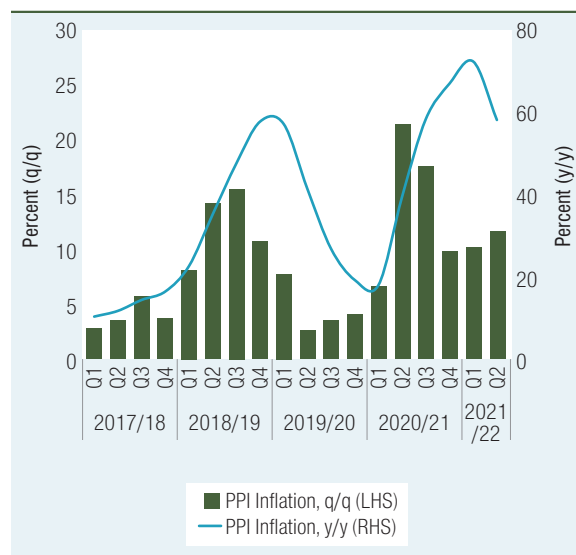


Source: SCI and World Bank staff calculations.

The authorities reduced the list of goods eligible for receiving the subsidized exchange rate for imports, but the allocated funds in 7M-21/22 grew compared to the same period in 2020/21. The list of essential goods eligible for receiving the subsidized exchange rate (IRR42,000 per US\$1) for imports was reduced to 7 items (6 food commodities plus medicine and medical devices), signaling a more targeted stance in access to the cheaper exchange rate. However, the allocated funds at this rate in 7M-21/22 (US\$11.1 billion), more than the total allocation in 2021/22 (US\$9.6 billion). While the subsidized exchange rate has mitigated some of the inflationary pressures, the reduction in the list of subsidized goods could reduce the size of a future shock if these subsidies were to be reduced or phased out.

Similar to previous cycles of high inflation, headline CPI was led by higher food prices and rental costs (Figure 17). High food and housing inflation disproportionately affects the lower deciles, as these items account for more than 75 percent of the consumption basket of the bottom 40 percent of the population, versus 51 percent for the highest income decile as defined by CBI. In addition, inflation in rural areas in 8M-21/22 was 4.7 percentage points higher than in urban areas, showing higher pressures on the rural poor population.

**FIGURE 18 • ... while Producer Price Inflation also Peaked**

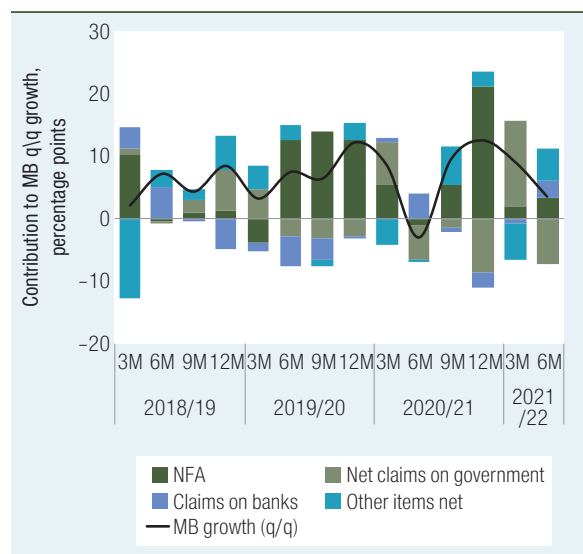


Source: SCI and World Bank staff calculations.

Producer prices recorded 58.9 percent inflation in Q2-21/22 (y/y) highlighting surging production costs as the rial depreciated (Figure 18). The mining and agriculture producer prices experienced even higher growth rates of 101.5 percent and 77.7 percent during the same period (y/y). The industry and service sectors also recorded 62.3 percent and 47.8 percent, respectively. As a result, producer price inflation across almost all sectors registered a decade-high record.

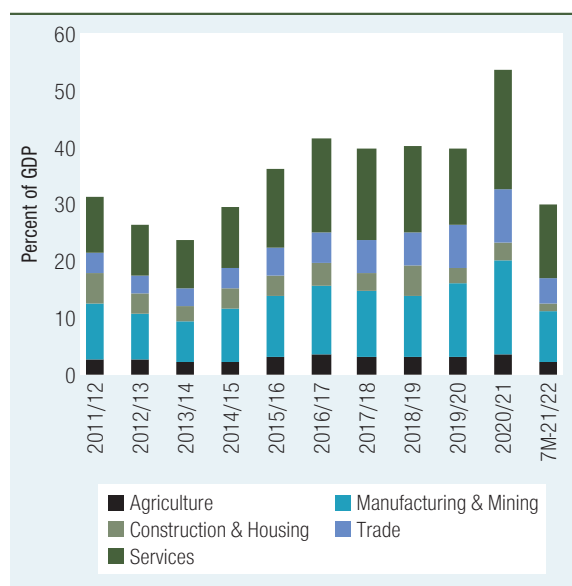
The growth of monetary aggregates accelerated sharply in H1-21/22, signaling inflationary pressures. Broad money (M2) growth accelerated by 17 percent y/y in H1-21/22, mainly due to a 13 percent expansion in the monetary base (MB). The driving force behind monetary aggregates' expansion was an increase in government financing operations through the banking system which led to a surge in CBI claims on government (Figure 19). An increase in net foreign assets (NFA) also contributed to the MB expansion as the CBI could not fully sterilize the impact of the funds due to the lack of access to its foreign reserves due to sanctions. M2 growth in 2020/21 recorded the highest rate in more than four decades (40.6 percent), mainly driven by an expansion of banking sector claims on the government and non-public sectors. This was in part due to the emergen-

**FIGURE 19 • Higher Government Debt to the Central Bank Drove Monetary Balance Growth in Q1-21/22**



Source: CBI and World Bank staff calculations.

**FIGURE 20 • Bank Credit Growth Accelerated in 2020/21**



Source: CBI and World Bank staff calculations.

cy COVID-19 loans which contributed to a rapid rise in credit issued by the banking sector (14 percentage points increase as a share of GDP) (Figure 20). The expansionary monetary trend continued in 2021/22 and banking system credit in nominal terms grew by 58.5 percent during 7M-21/22 (y/y). The banking sector faces deeper structural issues such as undercapitalization<sup>17</sup> and other balance sheet imbalances (e.g., accumulation of illiquid assets including non-performing loans<sup>18</sup> and claims on government).

**The large swings in inflationary expectations highlights the absence of a nominal anchor that can control inflationary pressures.** The authorities' attempts in controlling the nominal exchange rate as a means of tying down expectations has been inconsistent with the government's deficit financing operations which have caused inflation, changed relative prices and ultimately led to depreciation of the currency. The recent introduction of inflation targeting by CBI and the use of the nominal interest rate has also had limited effect in anchoring expectations due to the low depth of the debt market which itself is largely a reflection of real negative interest rates.

**The Tehran Stock Exchange (TSE) main index experienced lower volatility in 2021/22.** The TSE underwent unprecedented fluctuations

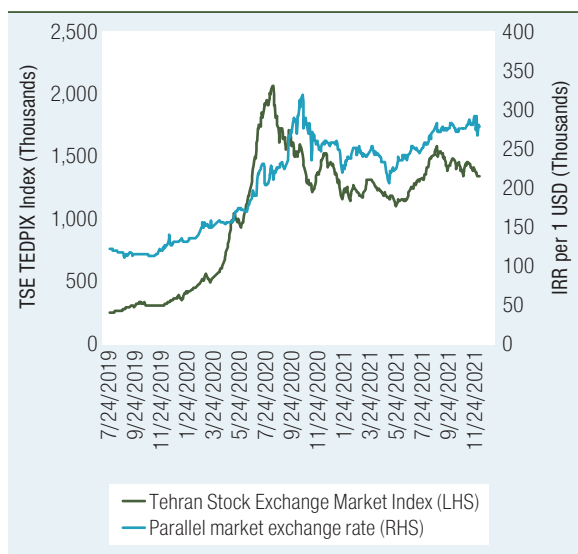
in 2020/21. The TSE index surged by over 300 percent after a series of initial public offerings of SOE shares in the bourse (partly for government financing purposes) and as trading restrictions on SOE shares previously managed by the government were removed, thereby drawing a large share of the population to the market.<sup>19</sup> This surging trend was followed by a large correction, but the size of the index remained well above its historical level reflecting the actual core market expansion and new demand for returns. The TSE experienced a more stable trend in 8M-21/22, reflecting some development of the market, lower exchange rate volatility, and limited government initial public offerings of SOE shares (Figure 21). In line with the movement of exchange rate and other financial assets, the stock market

<sup>17</sup> The capital adequacy ratios of most Iranian banks do not meet the Basel requirements.

<sup>18</sup> Even though the non-performing loan ratio has declined during the last few years, mainly due to loan rollovers and furloughed loans.

<sup>19</sup> The number of Iranians having a trading code on the market increased from under 12 million (15 percent of the population) in April 2020 to over 20 million (25 percent of the population) in October 2020.

**FIGURE 21 • TSE Underwent Lower Volatility in 2021/22, Partly Reflecting Exchange Rate Dynamics...**



Source: Tehran Stock Exchange (TSE), and media.

also experienced a downward trend in Q1-21/22 with lower inflation expectations, before reversing in Q2-21/22.

## External Sector

**The current account balance (CAB) turned positive in Q1-21/22 as a surge in exports outweighed the increase in imports.** The recovery after the pandemic led to a sharp increase in oil and non-oil exports by 125 and 69 percent in Q1-21/22 (y/y), respectively. Imports also increased by 42 percent in Q1-21/2 (y/y). The soaring exports and imports followed the sharp plunge in trade in 2020/21 due to the pandemic and continued sanctions. According to the US Energy Information Administration, Iran's oil exports fell to less than 0.4 mbpd in 2020, a historic low and down from over 2.5 mbpd in 2017. This led

### BOX 3 INFLATION AND EXCHANGE RATE DYNAMICS IN IRAN

Despite a remarkable decline in inflation around the world over the past four decades, Iran has witnessed persistent high inflation averaging at over 20 percent. The high inflation rate has also been volatile and negatively impacted investment and growth. Part of this inflation dynamic is reflected in the strong correlation between exchange rate movement and consumer price inflation in Iran (Figure B3.1).

The exchange rate pass-through (ERPT) measures the sensitivity of inflation to exchange rate fluctuations. Understanding the impact of exchange rate movements on prices is critical from a policy perspective to implement the appropriate monetary policy response to currency movements.

Focusing on the period Q2-2002 to Q2-2021, the unconditional ERPT\* in Iran was around 0.32. In other words, every 10 percent of depreciation materialized with a 3.2 percent increase in CPI inflation (contemporaneous, 3 months lag). A closer investigation of these dynamics necessitates an estimation of conditional ERPTs using other covarying structural variables. Here, the conditional ERPT for Iran is estimated using a Vector Auto-Regressive (VAR) estimation for three time-period: **Sanction-I** refers to the period of the first round of sanctions in Q1-2012 to Q2-2015 before the signing of the nuclear accord in 2015, known as the Joint Comprehensive Plan of Action (JCPOA). The second period (**JCPOA**) begins from Q3-2015 till the time that the US withdrawal from the agreement in Q1-2018, and the third period, **Sanction-II**, is the period after (Q2-2018 to Q2-2021). The GDP gap and broad money (M2) were used as other explanatory variables. Table B3.1 compares the estimated pass-throughs for different time periods.

The estimation results indicate the ERPT was lower in the recent period of US sanctions (Sanction-II) despite an unprecedented depreciation of the Iranian currency. While a 10 percent depreciation of the Iranian currency is associated with about 2.7 percent inflation over the entire sample, this has reduced to 2 percent inflation during the recent sanction. The main reason behind this could be attributed to the introduction of the subsidized exchange rate in April 2018 for essential goods which resulted in a weaker co-movement of exchange rate and prices. In addition, financing a large portion of the budget deficit through bond issuance in recent years also contributed to lower pressure on the CBI balance sheet and reduced inflationary expectations.

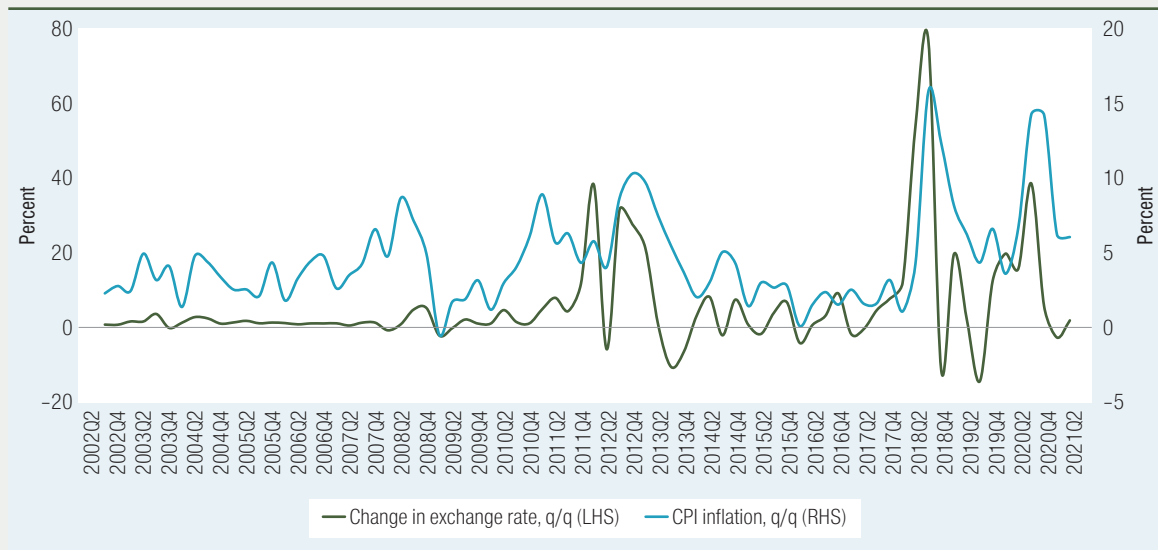
Figure B3.2 illustrates the impulse responses of CPI inflation to a one standard deviation shock to the nominal exchange rate in Iran for the entire sample period and Figure B3.3 illustrates it under the most recent period (Sanction-II). Considering the effect of the recent US sanctions dampen the impulse response function. The impact of an exchange rate shock on domestic price is over within two years, but it is mostly felt in the first three quarters.

\* The unconditional ERPT defined as the ratio of the change in consumer prices divided by the depreciation of the nominal exchange rate in the previous quarter.

(continued on next page)

**BOX 3 INFLATION AND EXCHANGE RATE DYNAMICS IN IRAN** *(continued)*

**FIGURE B3.1 • A Strong Correlation between Fluctuations in the Exchange Rate and Inflation**

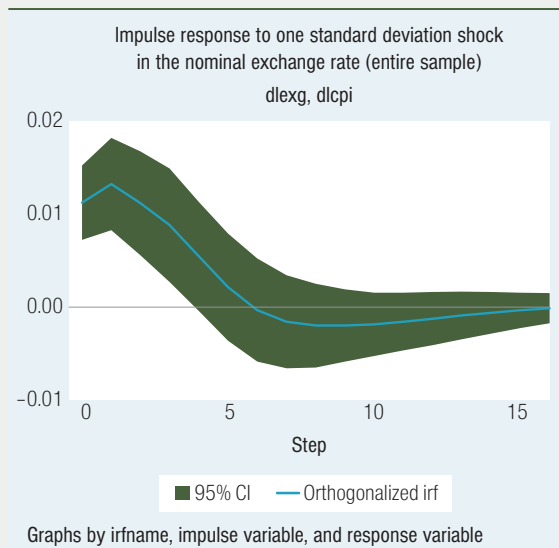


Source: SCI, CBI, and World Bank staff calculations.

**TABLE B3.1 • Estimated Exchange Rate Pass-Through in Iran in Different Time Periods**

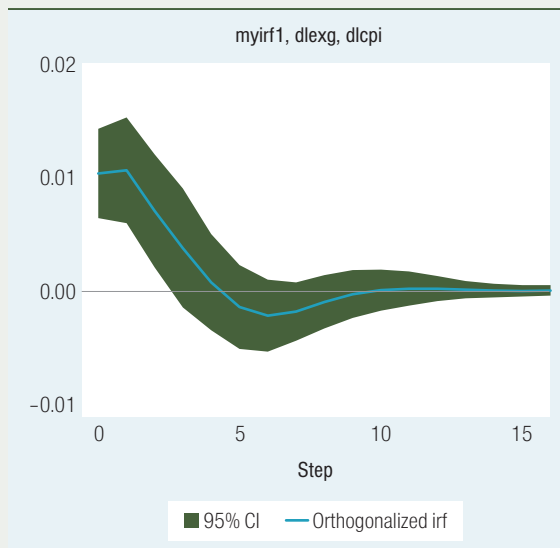
	Entire Sample (Q2-2002 to Q2-2021)	Sanction I (Q1-2012 to Q2-2015)	JCOPA (Q3-2015 to Q1-2018)	Sanction II (Q2-2018 to Q2-2021)
No Control Variables	0.24	0.23	0.21	0.17
With Control Variables	0.27	0.26	0.23	0.20

**FIGURE B3.2 • Exchange Rate Shocks Led to Higher Inflation...**



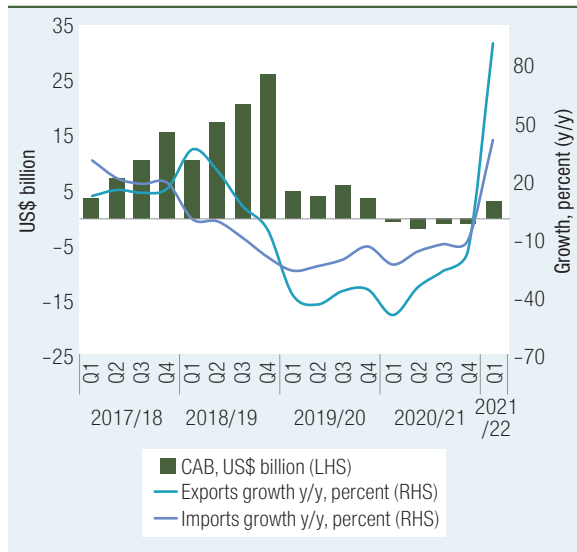
Source: World Bank staff estimates.

**FIGURE B3.3 • ...but Had a Lower Impact during the Latest Sanctions Period**



Source: World Bank staff estimates.

FIGURE 22 • The CAB Registered a Surplus in Q1-21/22...

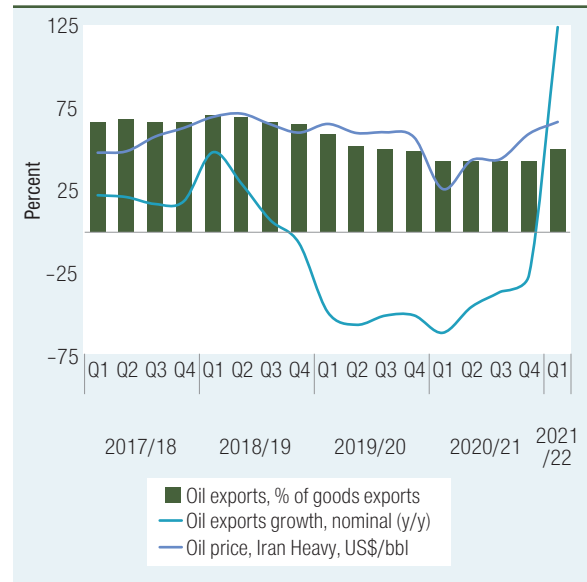


Source: CBI and World Bank staff calculations.

the CAB to turn negative in 2020/21 for the first time in the past fifteen years, registering a US\$0.7 billion deficit (Figure 22).

**Non-oil exports surged in H1-21/22, surpassing the pre-pandemic level.** During H1-21/22, non-oil exports grew by 61 percent (y/y) reaching US\$21.8 billion (about 4 percent above the pre-crisis level of US\$20.9 billion in H1-19/20). The large growth in non-oil exports was mainly a base effect resulting from the impact of border closures at the onset of the COVID-19 in H1-20/21. Iran's top five export destinations remained the same, led by China (29.8 percent), Iraq (17.4 percent), United Arab Emirates (UAE) (10.1 percent), Turkey (10.5 percent), and Afghanistan (4.6 percent). Non-oil exports to all destinations were below their pre-crisis level in H1-19/20 except for China where it increased significantly (27 percent compared to H1-19/20) thereby being the main driver of the increase in total non-oil exports to above the pre-pandemic level (Figure 24). Liquefied natural gas, methanol, polyethylene, semi-finished iron products, iron ingots, and propane were the top items in Iran's non-oil export basket. In H1-21/22, petrochemical products and gas condensates accounted for over half of total non-oil exports.

FIGURE 23 • ...as Oil Export Revenues Rebounded

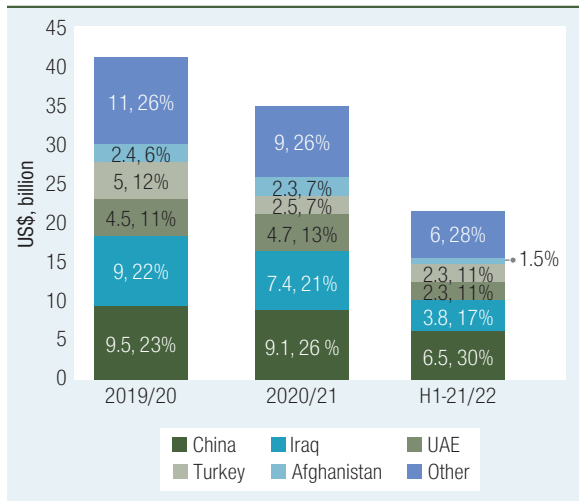


Source: CBI, OPEC, and World Bank staff calculations.

**Import growth in H1-21/22 also surpassed the pre-pandemic level in H1-19/20.** Iran imported US\$23.1 billion worth of goods in H1-21/22 (37.6 percent growth, y/y), about 8.8 percent above its pre-pandemic level at US\$21.22 billion in H1-19/20. Top import partners include UAE (31.6 percent), China (21.6 percent), Turkey (10.4 percent), Germany (4.5 percent), and Switzerland (3.9 percent) (Figure 25). The share of imports from UAE has increased substantially reaching 31.6 percent in H1-21/22, up from 17.8 percent two years earlier in H1-19/20, and the country has replaced China as the top exporter to Iran. Imports from UAE are predominantly reexports from other countries and consist of a range of consumer goods and raw material. The recent rebound came after a recent easing of financial and logistic restrictions that UAE had previously enforced against Iran allowing for the restart of havaleh (hawala) transactions. Since April 2021, India is no longer one of the top five main exporters to Iran partly as Iran's accessible funds with Indian banks were gradually depleted after India stopped importing Iranian oil due to US sanctions. Iran's main imported goods in H1-21/22 were cellphones, corn, soybean, sunflower seed oil, and soybean.

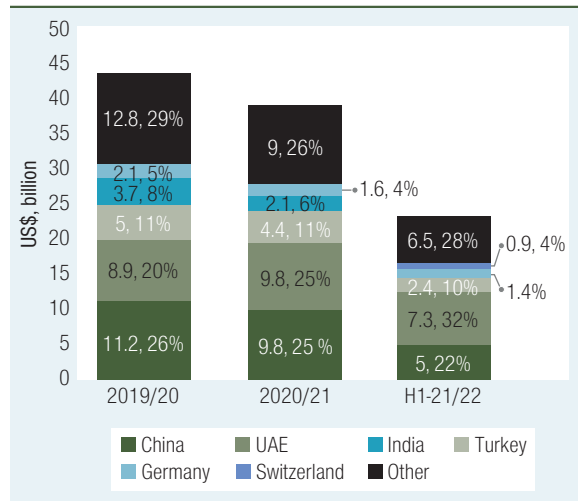


**FIGURE 24 • Non-oil Exports to Traditional Partners Surged in H1-21/22....**



Source: Islamic Republic of Iran Customs Administration (IRICA) and World Bank staff calculations.

**FIGURE 25 • ...and UAE Replaced China as the Largest Exporter to Iran**



Source: IRICA and World Bank staff calculations.



# OUTLOOK AND RISKS

## Outlook

**Iran's economic outlook is affected by the COVID-19 pandemic and the demand prospects from main export partners.** Domestically, the initial slow response with regards to COVID-19 immunization in the face of the large Delta variant wave is expected to dampen growth due to the scarring effects of the pandemic and lingering threat of future waves of infection. Stricter COVID-19 containment measures aimed to contain the spread alongside shortfalls in attracting new investment, due to negative real interest rates, will be additional headwinds to growth in the outlook. Globally, slower growth in major trade partners such as China, together with ongoing US sanctions on exports is also projected to weigh down on growth in both oil and non-oil sectors. As such, average GDP growth is projected to be modest, at under 3 percent per annum, in the medium term.

**Higher oil prices are estimated to only marginally improve Iran's current account as oil export volumes remain below their historical trend.** Global oil prices are projected to improve from US\$41 per barrel in 2020 to an average of US\$70 per barrel in 2021–23. However, the slow increase in the

volume of oil exports from the current low base, which is constrained by ongoing sanctions, is expected to only have a modest impact on the external account. Non-oil exports are also expected to increase in line with a moderate pickup in demand from neighboring countries, however, their contribution to exports is likely to remain below their full price competitiveness potential. This is largely due to difficulties facing Iranian businesses in acquiring international banking and logistical services and their limited integration to global and regional value chains. As such, the CAB is forecast to remain in a surplus of under 2 percent of GDP over the outlook years.

**In the absence of a significant rebound in oil revenues in the medium term, the fiscal deficit is projected to widen and raise financing needs.** In the absence of a significant easing of US sanctions on the oil sector, oil revenues are projected to remain in line with their current historic low share of government revenues. Non-oil revenues are also forecast to only grow slowly in real terms as the projected slow economic recovery would limit the growth in the tax base. Wage bill and pensions expenditures, the main drivers of expenditures, are expected to grow steadily to partly offset the impact of high inflation. These revenue and expenditure dynamics are expected to

widen the deficit keeping the fiscal balance at over 6 percent of GDP. To finance the growing deficit, the government is expected to continue maximizing bond issuance, draw more heavily on NDFI reserves, and monetize part of the fiscal deficit especially if planned sales of assets do not materialize.

**Headline inflation is expected to remain high over the outlook period, driven by inflationary expectations and government financing operations.** In line with current uncertainties surrounding the path of the economy both due to domestic and external factors, and in the absence of a nominal anchor, inflationary expectations are projected to be the main driver of prices and add to downward pressures on the value of the rial. These pressures are reinforced by the financing of the government deficit, which in the absence of substantial fiscal reforms or a significant recovery in oil revenues, could lead to monetization of the deficit which would in turn add to inflationary pressures. As such, headline inflation is forecast to remain at over 40 percent on average in the medium term.

**As with previous bouts of high inflation, households' welfare will to be significantly impacted by higher consumer prices.** The rising cost of living is expected to increase economic pressures on poor and vulnerable households disproportionately and reduce the real value of wages and existing government transfers. Policy response is expected to be constrained by the limited fiscal space but improved implementation of targeting of cash transfers could help reduce mitigation costs.

## Risks and Opportunities

**Major risks to Iran's economic outlook relate to the course of the pandemic and the prospects of geopolitical developments.** The emergence of more infectious and deadly new variants of COVID-19 and subsequent containment measures would pose a significant risk to the recovery in Iran's economy until full vaccination of a large share of the population is achieved. Trade disruptions and weaker demand from neighboring countries such as Afghanistan and Iraq, the main source of accessible foreign exchange reserves, would also prove as a major headwind for

growth and financing imports. The economy also remains vulnerable, albeit less than in the past, to future downturns in global oil prices. The mounting climate change challenges resulting in more severe water and energy shortages together with high inflation could further increase pressures on the most vulnerable and add to social grievances. Upside risks relate to the possibility of sanctions relief which could boost economic activity, as the economy has chronically operated below potential capacity.

**Existing structural challenges in government deficit financing highlight the necessity of adopting a fiscal risk management strategy.** While government debt in Iran remains relatively modest and dominated by domestic sources, the growing debt has mainly come at the expense of the debtors including pension funds and domestic banks with implications for the rest of the economy. Similarly, the government borrowing from banks has contributed to the banks' undercapitalization and their subsequent borrowing from the CBI. In other words, even in years where the government has not borrowed directly from the CBI, its financing operations have heightened banking sector risks, increased the monetary base and led to inflation. Furthermore, the uncoordinated and sudden sales of assets by overreliance on the stock market will spillover risks to the market and heighten economic uncertainty while excessive issuance of short-term debt will increase roll-over risks. While the large negative real interest rate makes these issuances attractive in the short run, it further weakens the balance sheets of banks who are required to keep a portfolio of these bonds due to the lack of depth of the debt market. The government is also exposed to significant other contingent liabilities risks including guarantees to SOEs, and other public and semi-public institutions. Thus, the projected fiscal outlook would be considerably worse should these structural fiscal risks materialize. If left unresolved, these challenges could significantly undermine fiscal and financial sector sustainability in coming years.

**Iran also faces significant climate change challenges which if left unaddressed will have a dire impact on the economic and social fabric of the country. The recent unprecedented droughts and desertification trend are likely to intensify**

**and pose significant risks to food security and people's livelihoods.** Deforestation, under investment in preserving water resources, and short-term agricultural policies have resulted in water shortages and soil degradation across the country. Recurring droughts will reduce hydropower energy generation and intensify electricity shortages. **Thus,** bold reforms in managing these climate and environmental change challenges are more crucial than ever. These include curbing the high intensity of energy usage which has worsened due to large energy subsidies, reduce flaring of associated gas, and invest in renewable energy generation.<sup>20</sup> Similarly addressing the depleting water resources requires better institutional and water resource management strategies. Greening the manufacturing sector, which relies on older inefficient technologies, through investments and imposing environmental levies could pave the way for a more sustainable development path.

**Facing these challenges, the new government is well placed to prepare and implement a comprehensive package of economic reforms.** The most important immediate target of reforms is

to reduce the budget deficit including by increasing tax revenues and reducing subsidy transfers through rationalizing domestic energy prices. To avoid additional inflationary pressures the budget deficit would be financed by issuing government bonds without impact on the central bank's balance sheet. Monetary policy needs to be prudent and less accommodative to rein in inflationary pressures. The most vulnerable should be protected by means-tested measures including by strengthened and targeted social safety nets. Finally, there is an urgent need for the government to devise a comprehensive plan of action for transitioning away from fossil fuels as the global shift away from carbon will have serious implications for the country's economic sustainability in the near future.

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<sup>20</sup> Iran's per capita energy use is almost twice as high as China. While part of the resources is directly lost through flaring of associated gas, low prices have led to overconsumption and lack of investment in improving energy efficiency. Iran ranks as the biggest subsidizer of fossil fuels (IEA) and the third largest gas flaring country in the world (World Bank).

TABLE 1 • Selected Economic and Financial Indicators, 2018/19-2023/24

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
	Act.	Act.	Act.	Est.	Proj.	Proj.
<b>Real sector</b>	<b>(Annual percentage change, unless otherwise stated)</b>					
Real GDP at market prices	-6.0	-6.8	3.4	3.1	2.4	2.2
Real GDP at factor cost	-5.4	-6.5	3.6	3.1	2.4	2.2
Real GDP per capita	-7.3	-8.0	2.1	1.8	1.2	1.1
Real non-oil GDP	-1.8	1.1	2.5	0.8	1.9	1.7
Total crude oil production (mbpd)	3.6	2.4	2.0	2.3	2.5	2.6
<i>(GDP supply side components)</i>						
Agriculture	-0.9	8.8	4.5	1.6	2.1	4.0
Industry (including oil)	-11.0	-15.9	8.4	3.6	3.5	3.4
Services	-0.7	-0.5	-0.1	2.9	1.6	0.9
<i>(GDP demand side components)</i>						
Private consumption	-2.6	-7.7	-0.4	2.1	1.8	1.5
Government consumption	-2.9	-6.0	-2.3	2.4	1.7	1.5
Gross fixed capital formation	-12.3	-5.9	2.5	1.2	2.1	2.7
Exports, goods and services	-12.5	-29.9	-5.4	12.0	7.1	5.9
Imports, goods and services	-29.5	-38.1	-29.2	9.8	4.8	3.9
<b>Money and prices</b>						
Oil price (US\$/bbl)	68	61	41	70	74	65
CPI Inflation (p.a.)	31.1	41.3	36.4	42.9	41.6	40.3
Monetary base (MB)	24.2	32.8	30.1	n/a	n/a	n/a
Broad money (M2)	23.1	31.3	40.6	n/a	n/a	n/a
Banking system credit	40.4	39.9	54.1	n/a	n/a	n/a
Nominal interest rate (percent)	19.7	18.9	19.8	n/a	n/a	n/a
Nominal exchange rate, parallel market (IRR/USD)	103,378	129,185	228,809	n/a	n/a	n/a
	<b>(Percent of GDP, unless otherwise stated)</b>					
<b>Investment &amp; saving</b>						
Gross capital formation	27.3	31.0	32.8	32.0	31.6	31.3
Gross national savings	36.4	32.5	32.5	33.4	33.1	33.0
<b>Government finance</b>						
Total revenues	15.4	10.8	8.0	8.8	9.5	9.7
Tax revenues	6.7	6.6	5.5	6.0	6.6	6.8
Total expenditures	17.1	15.9	14.8	16.1	16.4	16.6
Current expenditures	14.2	13.2	11.9	12.6	12.9	13.1
Net lending/borrowing (overall balance)	-1.7	-5.0	-6.9	-7.3	-6.9	-6.8

(continued on next page)

TABLE 1 • Selected Economic and Financial Indicators, 2018/19-2023/24 (continued)

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
	Act.	Act.	Act.	Est.	Proj.	Proj.
Gross Public Debt	38.5	48.0	52.0	53.7	53.2	52.6
<b>External sector</b>						
Current account balance	9.1	1.5	-0.3	1.4	1.5	1.7
<b>Population and labor market</b>						
Population (million)	81.8	82.9	84.0	85.0	86.0	87.0
Participation rate (percent)	44.5	44.1	41.3	n/a	n/a	n/a
Unemployment rate (percent)	12.2	10.7	9.6	n/a	n/a	n/a
<b>Memorandum Items:</b>						
Nominal GDP (IRR billion)	19,128,840	24,412,570	35,084,726	49,427,479	69,284,161	96,970,731

Source: Iranian authorities and World Bank staff estimates and projections.









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