IRAN ECONOMIC MONITOR

Moderate Growth amid Economic Uncertainty

Spring/Summer 2023

THE WORLD BANK
IBRD - IDA | WORLD BANK GROUP
Middle East & North Africa
Iran Economic Monitor

Moderate Growth amid Economic Uncertainty

With a Special Focus
The Gendered Impact of the COVID-19 Crisis on the Labor Market in Iran

Spring/Summer 2023

Middle East and North Africa Region
TABLE OF CONTENTS

Abbreviations and Acronyms ................................................................. v
Preface ............................................................................................... vii
Executive Summary ............................................................................ ix
چکیده مدیریت .................................................................................. xiii

1. Recent Economic and Policy Developments .................................... 1
   Output and Demand ......................................................................... 1
   Labor Market and Jobs ................................................................... 4
   Public Sector Finance .................................................................. 6
   Monetary Policy and Prices ........................................................... 8
   External Sector ........................................................................... 12

2. Outlook ....................................................................................... 17
   Risks and Opportunities ................................................................ 18

Special Focus: The Gendered Impact of the COVID-19 Crisis on the Labor Market in Iran ..................................................... 23

References ....................................................................................... 29

List of Figures
   Figure 1 GDP Continued its Moderate Growth in 2022/23.................. 2
   Figure 2 ...Driven by an Expansion in Non-Oil Industries and Services ..................................................... 2
   Figure 3 Subdued Global Oil Demand Recovery Impacted the Country’s Oil Production and Export Price ........................................................................ 2
   Figure 4 ...but Manufacturing Production Grew Significantly, Thanks to Automotive Industries Growth .... 2
   Figure 5 Construction Sector in a Decade-Long Recession ................. 3
   Figure 6 Consumption Was the Main Driver of GDP Growth on the Demand Side ........................................... 3
   Figure 7 Employment Reached the Highest Level After the Pandemic but Is Still Below Its Pre-Pandemic level. ................................................................. 5
Figure 8: Unemployment Rate also Declined but Mainly Due to a Lower Labor Force Participation Rate

Figure 9: The Pandemic Worsened Gender Disparities in Iran’s Labor Market

Figure 10: Tax and Oil Revenues Grew in 2022/23...

Figure 11: …which Helped Narrow the Fiscal Deficit as a Share of GDP

Figure 12: Inflation Accelerated Further in 2022/23...

Figure 13: …Driven Mainly by Higher Food Prices Due to the Food Price and Import Subsidy Measures

Figure B1.1: Consumer Price Inflation in Rural Areas Has Been Higher in Recent Years

Figure B1.2: The Inflation Felt by the Lowest Income Deciles Has Surpassed Those for Top Deciles, Especially after the Recent Food Price Measures in June 2022

Figure 14: Economic Uncertainties Drove Fluctuations in the Rial’s Value Against the Dollar

Figure 15: M2 Growth Decelerated but M0 Growth Accelerated

Figure 16: M0 Growth Was Led by Claims on Banks in 2022/23

Figure 17: The Stock Market Stagnated Earlier this Year but Rebound Strongly Due to Inflationary Expectations

Figure 18: The CAB Registered a Surplus Due to Increasing Oil Exports Proceed...

Figure 19: …but the Capital Account Registered a Deficit in H1-22/23 for the Seventh Consecutive Year

Figure 20: Higher Import Prices Drove Imports above Non-Oil Exports

Figure 21: China Remains the Top Importer of Iran’s Non-Oil Exports

Figure B2.1: Iran’s External Trade Has Been Fluctuating Significantly Over the Last Decades...

Figure B2.2: …and Has Shifted from Europe Toward Asia...

Figure B2.3: …Mainly Due to the Increasing Role of China in Iran’s Trade

Figure B2.4: Iran’s Trade Concentration Has Increased During the Last Two Decades

Figure 22: India Is Once Again among Iran’s Top 5 Import Partners

Figure 23: The New Development Plan Goals are Ambitious

Figure 24: Stringency of COVID-19 Containment Measures in Iran and Selected Mashreq Countries

Figure 25: Distribution of Employment by Type of Job and Gender, 2019/20 (pre-COVID)

Figure 26: Changes in Employment 2019/20–2020/21, by Gender

Figure 27: Trends in Female Labor Force Participation and Tertiary Educated Women in the Working Age Population

List of Tables
Table 1: 2023/24 Budget Law Expanded at the Same Rate as Inflation
Table 2: Iran: Selected Economic and Financial Indicators, 2019/20–2025/26
Table 3: Changes in Participation and Unemployment 2019/20 and 2020/21, by Gender
Table 4: Changes in Work Hours and Underemployment 2019/20,2020/21, by Gender

List of Boxes
Box 1: How Inflation Affects Income Groups
Box 2: Iran’s International Trade Adjustment
### ABBREVIATIONS AND ACRONYMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAB</td>
<td>Current account balance</td>
</tr>
<tr>
<td>CAR</td>
<td>Capital adequacy ratio</td>
</tr>
<tr>
<td>CBI</td>
<td>Central Bank of Iran</td>
</tr>
<tr>
<td>COVID-19</td>
<td>Corona Virus Disease 2019 (Novel Coronavirus)</td>
</tr>
<tr>
<td>CPI</td>
<td>Consumer price inflation</td>
</tr>
<tr>
<td>bbl</td>
<td>Barrel of crude oil</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross domestic product</td>
</tr>
<tr>
<td>IEM</td>
<td>Iran Economic Monitor</td>
</tr>
<tr>
<td>IPI</td>
<td>Industrial Production Index</td>
</tr>
<tr>
<td>IRICA</td>
<td>Islamic Republic of Iran’s Customs Administration</td>
</tr>
<tr>
<td>IRR</td>
<td>Iranian Rial</td>
</tr>
<tr>
<td>ITS</td>
<td>Information and telecommunication services</td>
</tr>
<tr>
<td>LHS</td>
<td>Left-hand-side</td>
</tr>
<tr>
<td>M0</td>
<td>Monetary Base</td>
</tr>
<tr>
<td>M2</td>
<td>Broad Money</td>
</tr>
<tr>
<td>mbpd</td>
<td>Million barrels per day</td>
</tr>
<tr>
<td>MBRI</td>
<td>CBI’s Monetary and Banking Research Institute</td>
</tr>
<tr>
<td>MENA</td>
<td>Middle East and North Africa</td>
</tr>
<tr>
<td>m/m</td>
<td>Month-on-month</td>
</tr>
<tr>
<td>mm</td>
<td>Millimeters</td>
</tr>
<tr>
<td>NIMA</td>
<td>Unified system of foreign exchange transactions (Persian acronym)</td>
</tr>
<tr>
<td>NPL</td>
<td>Non-performing loan</td>
</tr>
<tr>
<td>OPEC</td>
<td>Organization of Petroleum Exporting Countries</td>
</tr>
<tr>
<td>p.a.</td>
<td>Per annum</td>
</tr>
<tr>
<td>PBO</td>
<td>Plan and Budget Organization</td>
</tr>
<tr>
<td>pp</td>
<td>Percentage point</td>
</tr>
<tr>
<td>RHS</td>
<td>Right-hand-side</td>
</tr>
<tr>
<td>q/q</td>
<td>Quarter-on-quarter</td>
</tr>
<tr>
<td>SCI</td>
<td>Statistical Centre of Iran</td>
</tr>
<tr>
<td>TEDPIX</td>
<td>Tehran Stock Exchange main index</td>
</tr>
<tr>
<td>TSE</td>
<td>Tehran Stock Exchange</td>
</tr>
<tr>
<td>US</td>
<td>United States of America</td>
</tr>
<tr>
<td>US$/USD</td>
<td>United States Dollar</td>
</tr>
<tr>
<td>WAP</td>
<td>Working age population</td>
</tr>
<tr>
<td>y/y</td>
<td>Year-on-year</td>
</tr>
</tbody>
</table>
The 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. The IEM’s coverage ranges 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 eleventh issue of the IEM was prepared by Majid Kazemi (Economist, Task Team Leader, EMNMT) and Razieh Zahedi (Consultant, EMNMT) under the general guidance of Jean-Christophe Carret (Regional Director), Eric Le Borgne (Practice Manager, EMNMT), and Norbert Fiess (Lead economist, EMNDR). The special focus chapter on the gendered impact of COVID-19 was prepared by Silvia Redaelli (Senior Economist, EMNPV), under the guidance of Johannes Hoogeveen (Senior Economist, EAWPV).

The findings, interpretations, and conclusions expressed in this Monitor are those of World Bank staff and do not necessarily reflect the views of the Executive Board of the World Bank or the governments they represent.

For questions and comments on the content of this publication, please contact Majid Kazemi (mkazemi@worldbank.org) or Eric Le Borgne (eleborgne@worldbank.org).

The data cut-off date for this report was June 22, 2023.
Iran’s economy continued to grow moderately for the third consecutive year in 2022/23, albeit at a slower pace than in the previous year. Real gross domestic product (GDP) grew by 3.8 percent in 2022/23, driven by expansions in services and manufacturing. Despite sanctions, the oil sector also expanded, aided by the tighter global oil markets. Favorable weather conditions helped the agriculture sector to marginally grow after the contractions in previous years. On the expenditure side, private consumption was the main driver of GDP growth. Government consumption contracted to contain the budget deficit following a sharp expansionary policy in 2021/22. Meanwhile, exports and imports both increased, and strong investment in machinery drove investments up, while construction investment marginally improved. However, the economy continues to face growth constraints notably related to the economic sanctions, restricted access to external markets and to the latest technology, and much-needed foreign investment.

Job creation, however, has not recovered in tandem with the recent GDP growth. While employment grew moderately in 2022/23, it remains below the pre-pandemic level by about 0.7 million jobs, due to job losses in the agricultural sector caused by drought and water shortages. Labor force participation also remained weak at 40.9 percent, indicating inadequate job opportunities. While the unemployment rate declined to a record low of 9 percent in 2022/23, this was primarily driven by the decline in labor force participation as the population that is actively seeking jobs declined. Unemployment remained higher among women who were disproportionately impacted by the pandemic (see the Special Focus chapter). Iran’s labor market challenges have been exacerbated by the growing flight of human capital abroad in particular among the high-skilled (including tech) labor force. Addressing labor market challenges, including creating more job opportunities, improving labor force participation, and retaining skilled workers, will be critical for Iran’s sustainable economic growth and development in the future.

The Special Focus of the report highlights the scarring effects of the COVID-19 pandemic, documenting the marked deterioration in labor market outcomes. Despite sizeable government interventions to sustain the economy, in the first year of the pandemic (2021/22), approximately 1 million jobs were lost, and labor force participation contracted by 3 percentage points. Iranian women were the most affected: two out of three jobs lost between 2019/20 and 2020/21 were previously held by women. The gendered impact of the crisis contributed to widening Iran’s women disadvantage in

---

1 The Iranian calendar year starts on March 21 of every year and ends on March 20 of the following year.
Most importantly, the gains in female labor force participation slowly accumulated since 2011 vanished. Consistent with what is observed in other countries, women with young children were the most affected by the crisis. The combined effect of school closures and unequal intra-household allocation of care responsibilities, associated with prevailing gender norms, pushed Iranian women with children out of the labor force. Whether or not these trends will be reversed as the management of the COVID-19 pandemic is normalized and the economy recovers from the crisis remains an important policy question.

The fiscal account received a boost from improved oil income and tax revenues. With tighter global oil markets and nuclear talks in the background, high oil prices and increased oil exports significantly increased oil revenue, although the growth fell short of meeting the budget target. Tax revenues were fully realized and accounted for over 40 percent of the government’s total revenues in 2022/23. The increase in revenue helped the government to marginally reduce the budget deficit, to an estimated 2.3 percent of GDP, and cover rising expenditures.

Consumer price inflation accelerated sharply in 2022/23, following the new food import policies and fueled by further currency depreciation and inflationary expectations. Both headline and core inflation rose significantly in 2022/23, reaching 48.7 percent and 42.4 percent, respectively. This marked the fourth consecutive year when consumer prices rose by more than 40 percent. Food prices were the main contributor to high inflation, accounting for about 40 percent of overall inflation. The phasing out of import subsidies for essential goods and the global surge in commodity prices following Russia’s invasion of Ukraine drove up food prices. Elevated food price inflation tends to particularly impact lower-income households, as food expenses account for a larger portion of their expenditures. In addition, the depreciation of the rial by over 40 percent in 2022/23, compounded the impact of rising global inflation and fueled inflationary expectations, putting additional pressure on prices.

Ongoing economic sanctions, slowing global demand, and energy shortages drive the economic outlook. GDP growth is projected to remain modest in the medium term, with both oil and non-oil GDP underperforming due to ongoing sanctions and years of underinvestment. The agriculture sector is also expected to face challenges, as droughts and climate change impact performance. Fiscal pressures are forecast to increase with higher expenditures, including from the wage bill, pensions, and transfers in response to high inflation and increased cost of living. Lower projected oil prices are also expected to add to fiscal pressures. Prospects of job creation remain weak due to water shortages in the (labor intensive) agriculture sector and an uncertain investment environment. Inflationary expectations, currency pressures, and a growing budget deficit are forecast to keep inflation elevated in the medium term. High inflation and the slow pace of job creation in turn would negatively impact households’ welfare, despite government transfers. On the external side, the current account balance is projected to remain weak due to declining oil prices along with subdued global demand and growing competition for oil exports—in particular from Russia—in Iran’s main export destinations. At the same time, increased capital outflows and limited access to international reserves will add pressure to foreign exchange reserves.

The medium-term outlook is subject to significant internal and external risks. Domestically, there is a risk of escalating social tensions and strikes in manufacturing. Continued internet disruptions could further have long-lasting and harmful effects on employment and economic activities, particularly in the service sector. Moreover, the country is exposed to significant climate change challenges, including extreme weather events, floods, lower precipitation, and recurring droughts, whose impact on agricultural production, employment, and food security can be even more profound with larger shocks. Extreme temperatures also increase energy demand while lower rainfalls reduce the supply of hydropower energy, which could lead to energy shortages and adversely impact industries in the absence of required investment and energy price reform. External risks include the possibility of an even weaker global demand for oil, a sharper decline in oil prices, and the intensification of US sanctions. On the upside, a partial waiver of sanctions, or stronger ties with neighboring countries and China, could provide a boost to oil and non-oil growth.
To ensure a sustainable growth rate in the face of multiple crises, significant reforms are necessary, including those on the fiscal side and the banking sector. Structural fiscal reforms should include rightsizing expenditures in the budget, reducing extrabudgetary spending, gradual reforms to energy prices, and creating more sustainable revenues by improving collection and reducing exemptions. The banking system faces multiple and longstanding challenges including negative capital adequacy ratio and high non-performing loans. Addressing these challenges requires enhanced bank supervision, the implementation of international regulations and best practices for asset classification, liquidity management, and internal controls. Other priorities for banking reform include creating a comprehensive contingency and crisis management framework, strengthening the asset quality examination process, conducting an asset quality review to identify viable banks for recapitalization and to improve capital and liquidity buffers and resolve non-viable banks, and securitizing government debt to generate cash flow for the banks to use as collateral in the interbank market.
کار، و حفظ کارگران ماهر، برای رشد و توسعه اقتصادی پایدار ایران در آینده بسیار حائز اهمیت خواهد بود.

گزارش سالیانه مدیریت اقتصادی در ایران

از بین رفتن مشاغل ناشی از خشکسالی و کمبود آب در بخش کشاورزی، میلیون شغل کمتر از شروع همه‌گیری کرونا به‌طور نسبی بیشتر مبتنی بر آسیب‌های اجتماعی و اکولوژیکی بوده است. نرخ بیکاری در سال ۱۴۰۰ با وجود این تغییرات در بازار کار ایران، همچنان بالاتر از پایه‌های بودجه‌ای انسانی است. نرخ بیکاری ناشی از تغییرات در بازار کار ایران، به‌طور نسبی بیشتر مبتنی بر آسیب‌های اجتماعی و اکولوژیکی بوده است.

بهبود اقتصاد ایران در سال ۱۴۰۱، برای سومین سال متوالی به رشد متوسط خود ادامه داد. این امر با سرعت میانی نسبت به سال قبل. تولید ناخالص داخلی در سال ۱۴۰۱ به میزان ۳.۸ درصد رشد کرد که عملکرد نسبی رشد ناخالص داخلی در سال ۱۴۰۰ بود. درصد رشد ناخالص داخلی در سال ۱۴۰۰ به میزان ۳.۸ درصد رشد کرد که عملکرد نسبی رشد ناخالص داخلی در سال ۱۴۰۰ بود.

درصد رشد ناخالص داخلی در سال ۱۴۰۱ به میزان ۳.۸ درصد رشد کرد که عملکرد نسبی رشد ناخالص داخلی در سال ۱۴۰۰ بود. درصد رشد ناخالص داخلی در سال ۱۴۰۰ به میزان ۳.۸ درصد رشد کرد که عملکرد نسبی رشد ناخالص داخلی در سال ۱۴۰۰ بود.

درصد رشد ناخالص داخلی در سال ۱۴۰۱ به میزان ۳.۸ درصد رشد کرد که عملکرد نسبی رشد ناخالص داخلی در سال ۱۴۰۰ بود.

درصد رشد ناخالص داخلی در سال ۱۴۰۱ به میزان ۳.۸ درصد رشد کرد که عملکرد نسبی رشد ناخالص داخلی در سال ۱۴۰۰ بود.
بیش از ۱۴۰۱، تورم و تورم هسته در سال تورمی به شدت شتاب گرفت. قیمت مصرف کننده بیش از ۴۰ درصد افزایش یافت. قیمت مواد غذایی هم از نظر پیش‌بینی کاهش یافت ولی افزایش قابل توجهی از سوی دیگری قیمت مواد غذایی باعث افزایش قیمت مصرف کننده شد. افزایش قیمت مواد غذایی به ویژه بر خانوارهای کم درآمد تأثیر می‌گذارد، زیرا هزینه‌های ارزش بخش بزرگی از مخارج آنها را تشکیل می‌نماید. به‌طور کلی، افزایش قیمت مواد غذایی در سال ۱۴۰۱ نیز اثر قابل توجهی بر افزایش قیمت‌های تأمین مالی داشته‌است.

در عین حال، خطر افزایش قیمت‌های پودر از کاربردهای اقتصادی در سال ۱۴۰۱ وجود دارد. این تغییرات اقتصادی، احتمالاً در ابتدا، به شدت وارد شده و در حال حاضر، در تمام جهان، به‌طور کلی، افزایش قیمت‌های نیترفس و همچنین افزایش قیمت‌های تأمین مالی موجب تشدید تنش‌های اجتماعی و صنعتی شده است. این افزایش قیمت‌های نیترفس یکی از وسایل اصلی تأمین مالی برای خانوارهای کم درآمد است. این افزایش قیمت‌های نیترفس به‌طور کلی، به‌طور واضح، به تشدید تنش‌های اجتماعی و صنعتی در کشور منجر می‌شود.

از لحاظ داخلی، توجه داخلی های قابل مدت در معرض ریسک از طرف خارجی و داخلی است. اعتصابات در بخش صنعت وجود دارد. ادامه اختلالات اینترنت می‌تواند اثرات مخرب بلندمدت بر اشتغال و فعالیت‌های اقتصادی را داشته باشد. علاوه بر این، کشور در معرض حمله روسیه به اوکراین، قیمت مواد غذایی را افزایش می‌دهد. افزایش قیمت‌های نیترفس به‌طور قابل توجهی به‌طور کلی، به تأمین مالی برای خانوارهای کم درآمد می‌یابد. این افزایش قیمت‌های نیترفس به‌طور کلی، به‌طور واضح، به تشدید تنش‌های اجتماعی و صنعتی در کشور منجر می‌شود.

از لحاظ خارجی، توجه خارجی های قابل مدت در معرض ریسک از طرف داخلی و خارجی است. تورم بالا به‌طور کلی، اثرات مخرب بلندمدت بر اشتغال و فعالیت‌های اقتصادی را داشته باشد. علاوه بر این، کشور در معرض حمله روسیه به اوکراین، قیمت مواد غذایی را افزایش می‌دهد. افزایش قیمت‌های نیترفس به‌طور قابل توجهی به‌طور کلی، به تأمین مالی برای خانوارهای کم درآمد می‌یابد. این افزایش قیمت‌های نیترفس به‌طور کلی، به‌طور واضح، به تشدید تنش‌های اجتماعی و صنعتی در کشور منجر می‌شود.

از لحاظ اقتصادی، توجه اقتصادی های قابل مدت در معرض ریسک از طرف داخلی و خارجی است. اعتصابات در بخش صنعت وجود دارد. ادامه اختلالات اینترنت می‌تواند اثرات مخرب بلندمدت بر اشتغال و فعالیت‌های اقتصادی را داشته باشد. علاوه بر این، کشور در معرض حمله روسیه به اوکراین، قیمت مواد غذایی را افزایش می‌دهد. افزایش قیمت‌های نیترفس به‌طور کلی، به‌طور واضح، به تشدید تنش‌های اجتماعی و صنعتی در کشور منجر می‌شود.
Output and Demand

Iran’s economy continued to grow for the third consecutive year in 2022/23, albeit at a slower pace than in 2021/22. Real gross domestic product (GDP) grew by 3.8 percent in 2022/23, driven by both oil and non-oil sectors (Figure 1). A rebound in economic activity led to an expansion in services and manufacturing, driving non-oil sector growth of 3.5 percent. The oil sector also expanded by 10 percent, partly due to the tight global oil market. Favorable weather conditions and a moderate increase in rainfall helped agriculture production to grow marginally by 1.1 percent (Figure 2). The recent economic recovery helped to narrow the income gap with income peers; this gap had previously widened with a decade of stagnation in Iran (2010/11–2019/20).

Oil production volumes grew moderately by 3.3 percent in 2022/23, thanks to tighter global oil markets. However, Iran’s crude oil production growth rate was below the average growth rates in OPEC countries which recorded a 7 percent increase. As a result, Iran’s share in OPEC production declined from 9.2 percent in 2021/22 to 8.8 percent in 2022/23. While the average price of Iran’s crude surged by 21.2 percent in line with the historical Brent premium (Figure 3), the final selling price is likely to have been lower due to sanctions-related heavy discounts. Oil production reached a four-year high in June 2023 (Iran is exempt from OPEC’s quota). However, oil production remained 1.1 million barrels per day (mbpd) below pre-sanctions level of 2018. The oil and gas sector has suffered from years of under-investment, leading to a 22 percent decline in net capital stock in the sector in 2021/22 compared to a decade earlier, limiting the prospects of a significant expansion in production capacity in the near term.

Non-oil industries expanded strongly in 2022/23 despite challenges from energy shortages, strikes, and an uncertain investment environment. The non-oil industries grew by 6.5 percent

---

2 The Iranian calendar year begins on March 21 and ends on March 20 of the following year.
3 As per OPEC’s secondary sources. Official data on production and exports have not been published since the re-imposition of US sanctions in 2018.
in 2022/23, with manufacturing leading the growth (9.5 percent). The Industrial Production Index (IPI)\(^4\) of selected industries in the stock market has been on an upward trend since April 2022 (Figure 4), driven by a strong expansion in the automotive industry and basic metals after contracting in 2021 due to power outages, microchip shortages in the aftermath of the pandemic, and increased restrictions on imports.\(^5\) However, petrochemical products, the largest manufacturing industry in Iran, stagnated since October 2022 due to subdued global demand for commodities.

\(^4\) The Monetary and Banking Research Institute (MBRI) publishes the index, covering over 280 industrial companies listed on the stock exchange that account for more than half of Iran’s manufacturing production.

\(^5\) Nevertheless, the automobile industry recorded a negative total net profit, and the total losses in H1-22/23 were twice the losses in H1-21/22.
Limited financing and rising production costs caused a contraction in the construction sector. A declining share of bank credit to the construction sector (from 13 percent in 2018/19 to 7.1 percent in 2022/23) coupled with skyrocketing prices of construction materials and land (over 280 and 150 percent over the past three years, respectively) have maintained the construction sector in a decade-long recession (Figure 5). Demand for housing has also been impacted by soaring housing prices, which has not only made house ownership unaffordable for many Iranians but also pushed up rent prices. To boost construction, the government had announced plans to more than double housing production and build one million affordable houses per year in the next four years but is reported to have met only about a quarter of its goal in the first year. The government-mandated credit to the construction sector was 20 percent of total bank credits but allocations did not materialize in 2022/23.

The agricultural sector in Iran has shown moderate growth of 1.1 percent in 2022/23, driven by more favorable weather conditions. However, this sector continues to grapple with numerous challenges, particularly water shortages, that pose a threat to both agricultural production and food security. Despite better growing conditions and an increase in the guaranteed purchase price of agricultural products, the recent elimination of the subsidized exchange rate has pushed the prices of fertilizers and other agricultural inputs up, increasing production costs and impacting domestic food production. To overcome challenges in the agricultural sector, it is crucial that appropriate policies are implemented to address water scarcity, climate change, and high production costs to contribute to food security and reduce import needs.

---

6 Since 2016/17, with the exception of 2018/19, the share of credit allocated to housing has been below 10 percent.
7 Despite a 25 percent cap on rent increase, the average rent in Tehran registered a record high with a 59 percent increase in 2021/22.
8 Many banks find it not cost-effective to provide credit to the construction sector. This is because the cost of providing money is higher than the approved interest rate on bank credit. Moreover, there is a maturity mismatch of deposits and loans that puts more pressure on banks.
9 The water crisis in Iran is not solely caused by a natural scarcity of water but is also a result of mismanagement and poor governance of water resources. The root causes of water scarcity include rapid population growth and improper patterns of settlement, the location of water-consuming industries (such as steel) in provinces with water stress, inefficient agriculture production, and mismanagement in the distribution of water resources. See Chapter 7 in Azadi et. al (2022).
The service sector was one of the main drivers of non-oil growth during the last two years. The sector continued its expansion in 2022/23 (2.7 percent, y/y), following a strong expansion in 2021/21 (6.5 percent). This growth was mainly driven by a rebound in “transport and storage” and “wholesale and retail” services, as well as the sustained growth of “Information and telecommunication services (ITS)”. Over the last decade, the expansion of the ITS and banking and insurance sectors has been the primary driver of growth in the service sector, with average annual real growth rates of 17 percent and 10.5 percent, respectively. The gig economy, however, is facing challenges related to shortages of high-skilled labor and concerns about the quality and stability of the internet.10 The service sector is crucial for non-oil growth in Iran, and its sustained expansion will be critical for future economic development.

On the expenditure side, private consumption was the main driver of GDP growth in 2022/23, expanding strongly by 8.7 percent. This higher consumption was driven by the continued rebound after the pandemic, but also inflation hedging through the purchase of durable goods due to negative real interest rates, increased uncertainty, and elevated inflationary expectations. Meanwhile, government consumption contracted by 3.6 percent due to the under-realization of revenues, following a sharp expansionary budget in 2021/22. Exports and imports expanded by 8.2 percent and 7.5 percent, respectively. Investment also expanded by 6.7 percent in 2022/23 driven by machinery investment. Nonetheless, the contraction of gross fixed capital formation by over 50 percent in the past decade points to a significant decline in long-term investments, which could have negative implications for the future growth and development.

Labor Market and Jobs

The labor market in Iran has remained weak due to sluggish job creation. Employment grew moderately by 1.1 percent in 2022/23, but employment figures still fall 0.7 million jobs short of those registered in 2019/20 (Figure 7). Job losses occurred mainly in the agriculture sector, which lost 10.2 percent of its employment due to drought and water shortages. The service sector has seen a strong expansion after the pandemic (over 13 percent), but this has not fully translated into employment and the sector remains slightly below its pre-pandemic level.

Even with a growing working-age population, labor force participation remained low in part due to inadequate job opportunities. Labor force participation in 2022/23 remained low at 40.9 percent, 3.2 pp below pre-pandemic level in 2019/20 and with a significant gender gap (13.6 percent and 68.2 percent for females and males, respectively). During the past three years, the working-age population has increased by 2.1 million,11 but the active population has declined by 1.1 million compared to 2019/20 (Figure 8). The decline in the active population was partly due to the lack of job opportunities in the agriculture sector, especially in rural areas (4.5 pp decline, from 47.3 percent in 2019/20).

The decline in the unemployment rate does not fully reflect labor market challenges. While the unemployment rate declined to a record low of 9 percent in 2022/23, this decline was driven by the above-mentioned reduction in the economically active population as more long term unemployed stopped looking for work (e.g., discouraged workers). Unemployment also varies significantly among different subgroups. While male unemployment registered a low of 7.7 percent in 2022/23, the unemployment rate for females was 13.6 percent, significantly higher than for males (68.2 percent).

---

10 Recently, Iran faced further challenges with internet disruptions and limited access to certain online platforms and applications in the aftermath of protests in the country. According to an online survey conducted by the computer union organization, during the internet disruption in September 2022, over 41 percent of companies experienced a loss of 25 to 50 percent of their revenue, while 47 percent of companies lost more than half of their sales. The cost of internet disruptions is estimated to be as high as US$36 million per day (according to Net Blocks). Furthermore, Iran’s rank in the fixed broadband speed test is 147 out of 181 countries, highlighting its slow internet speed (speedtest.net).

11 The growth of the working-age population has been uneven in Iran, with urban areas experiencing an increase of 2.3 million, while rural areas have seen a decline of 0.2 million. This suggests a trend of migration from rural to urban areas.
rate among females, youth, and university graduates was 15.8 percent, 22.6 percent, and 12.9 percent, respectively. Underemployment also remained high at 9.5 percent in 2022/23, which also highlights the weak labor market in Iran.

The disproportionate impact of the pandemic on female employment persists. While male employment in 2022/23 was slightly above its pre-crisis level in 2019/20 (0.6 percent), female employment declined by 15.5 percent (see the Special Focus chapter for a more detailed analysis on the gendered impact of COVID-19 on the labor market). Compared to before the pandemic, the employment-to-working-age population ratio and labor force participation rate for females were 2.6 pp and 3.4 pp lower in 2022/23, adding to pre-existing gender disparities in labor market outcomes. Despite a low participation rate, the female unemployment rate in 2022/23 (15.8 percent) was higher than for men (7.7 percent).

The combination of low labor force participation, high unemployment and underemployment is indicative of significant labor market challenges. Iran’s economy is not creating enough jobs to keep pace with the growing working-age population. There are further significant disparities in job opportunities across different groups, particularly for women, youth, and university graduates. These challenges can have significant economic and social implications, including social unrest, lower productivity, lower economic growth, and higher levels of poverty and inequality. Addressing these challenges will require a comprehensive approach that includes policies to stimulate job creation, improve access to education and training, and promote greater gender equality in the labor market.

Increased emigration of skilled workers adds to labor market challenges. Iran ranks among the countries with the highest rates of brain drain. This trend has been ongoing for the past four decades, with a recent acceleration particularly among technicians in the oil and energy industries, ICT experts, and healthcare workers such as nurses and surgeons. Along with

12 Despite having a highly educated female population, Iran’s female participation rate is among the five lowest in the world. Additionally, Iran’s ranking in the 2022 Global Gender Gap Index is 143 out of 146 countries (World Economic Forum). The index takes into account four key areas: economic participation and opportunity, educational attainment, health and survival, and political empowerment.

13 While the exact number of Iranians living abroad is difficult to determine, a report by the Ministry of Foreign Affairs estimates it to be over 4 million people. The US has the highest number of Iranian migrants at 1.5 million, followed by Canada with 400 thousand.
additional challenges such as the shortage in experts, internet disruptions, and an uncertain investment environment, this trend has driven the relocation of startups in Iran to neighboring countries. Despite certain initiatives, such as the council for elites, support programs for the Iranian diaspora and skilled professionals, the outflow of skilled workers continues. Addressing this issue will require comprehensive measures to retain and attract skilled workers, including providing them with better job opportunities and incentives for staying in the country.

Public Sector Finance

In 2022/23, the government fiscal account was supported by improved oil income and tax revenues. With tighter global oil markets and nuclear talks in the background, high oil prices and oil exports led to significant growth in oil revenues in 2022/23 (over 70 percent growth rate), reaching 4.3 percent of GDP, the highest level since sanctions were reimposed. The growth in oil revenue, however, met only about 80 percent of the optimistic budget target (Figure 10). Tax revenues were also fully realized and contributed to over 40 percent of government revenues despite an under-realization of import tax but remained stable as a share of GDP at 5.1 percent. In 2022/23, direct tax revenues nominally grew by 56 percent, mainly due to a strong expansion in corporate tax (62 percent). Corporate tax accounted for about two-thirds of direct tax revenue, followed by income tax (29 percent) and wealth tax (7 percent). In 2022/23, sales and consumption tax also met 84 percent of its planned budget target, in part aided by the inflation effect on the nominal growth of the tax base. The sale of government assets also met 23 percent of its budget target. Improved oil revenue and tax revenues in 2022/23 helped the government cover most expenditures and curb the fiscal deficit. Budget expenditures grew nominally due to higher cash transfers and higher import bills to mitigate the effect of high inflation coupled with higher wage bills and

According to the Iran Migration Outlook report (2021), the number of migrant students has tripled over the past two decades.

Latest official fiscal data available is for 2020/21. The information reported for subsequent years is primarily based on reports and interviews of authorities reported in the media.

In May 2022, the government discontinued the subsidized exchange rate for imports of major food staples including wheat, poultry, eggs, dairy, and cooking oil, and replace them with a combination of direct transfers and electronic coupons. This measure also aims to manage domestic consumption and curb the smuggling of subsidized food to neighboring countries. For more details, see Iran Economic Monitor, Spring 2022.
adjustments to pensions, but it declined to 13.2 percent of GDP. The current expenditure met 97 percent of the planned budget while the capital expenditure fully realized (Figure 11). As a large portion of the government-issued bonds was used for servicing existing debt, the remaining budget deficit was financed through the National Development Fund and borrowing from the banking system.

**Expenditures in the 2023/24 Budget Law are set to grow more than revenues, resulting in higher financing needs.** The government plans to rely more on tax revenues, which are projected to grow by 67.6 percent and make up about half of total revenues, marking a significant increase from the share in the previous year’s budget law (44 percent). The highest expected increase in tax revenues relative to the previous year’s budget law is corporate taxes, which are planned to grow by 118 percent.\(^{17}\) Oil export revenues are calculated based on an oil export volume of 1.4 mbpd and an average oil price of US$85/bbl. Given the competition from the discounted price of Russian oil, the realized oil exports in 2022/23, and softening global oil demand next year, it seems both oil price and export volume assumptions are optimistic. The implicit exchange rate assumed in the bill is IRR230,000/US$, the same rate as last year’s, despite a sharp depreciation of the domestic currency in recent months. This lower implicit exchange rate acts as a potential buffer for filling the possible shortfall in oil revenues denominated in local currency if needed. Current expenditures are expected to grow by 51 percent compared to 44 percent for investment expenditures. The public sector wages and pensions are to increase by an average of 20 percent—implying a real wage cut given the high inflation rate (above 40 percent). Like previous years, the public wage increase would be progressive with higher wage increases for employees with lower salaries.

**Despite the flat budget compared to the previous year, the 2023/24 budget would result in a more than doubling of the fiscal deficit compared to the 2022/23.** The deficit is planned to be financed primarily through government bonds (63 percent) and privatization proceeds (36 percent). Bond issuance is planned to increase by 80 percent but over 90 percent will be used to service existing debt. The sale of government assets is expected to expand by 49 percent.

---

\(^{17}\) This increase seems optimistic as many businesses have been struggling with the pandemic, investment uncertainties, and weak demand due to declining purchasing power during recent years, while many semi-governmental entities remain tax exempt.
Overall, the 2023/24 budget law lacks a comprehensive reform plan to tackle structural challenges, including curbing inflation, promoting investment (e.g., in climate change resilience), and enabling job creation that would address the current political and economic situation. Despite rising imbalances in the banking sector, the budget does not include measures to alleviate these pressures including repaying government arrears to banks. Similarly, the unsustainable pension system is left unaddressed despite the rapid rising burden on the budget including the government backtracking on an earlier plan to raise the retirement age.18

Monetary Policy and Prices

Consumer price inflation (CPI) accelerated sharply in 2022/23 following the new food import policies and global inflation, registering inflation of over 40 percent for the fourth consecutive year. The headline and core inflation rose to 48.7 percent and 42.4 percent in 2022/23, respectively (Figure 12). Food prices were the main contributor to high inflation, accounting for about 40 percent of inflation, followed by housing (Figure 13). The phasing out of essential goods’ import subsidies and the global surge in commodity prices after the war in Ukraine drove the increase in food prices. High inflation disproportionately affects lower-income households, whose food and housing expenses account for about 80 percent of their budgets, while their real wages decline (see Box 1 for more information on the impact of inflation across deciles).

18 Over the past decade, there has been a significant increase in the budget allocated to the four major pension funds, with an 11-fold increase observed. In the 2023/24 budget law, the government has allocated about 22 percent of the current expenditure to these funds, which could potentially strain the government’s finances.
High consumer price inflation has been a chronic economic challenge in Iran, with annual inflation rates averaging above 20 percent in the last four decades. In recent years, the situation has worsened, with a record four-year streak of inflation above 40 percent impacting the livelihoods of low-income households. The main drivers of high inflation are the budget deficit and imbalances in banks' balance sheets, reflected in an inflated monetary aggregate growth rate and the depreciation of the domestic currency. The reimposition of US sanctions has further exacerbated these challenges, leading to a significant budget deficit and a sharp depreciation of the rial. More recently these pressures were intensified by rising global inflation following the Russia-Ukraine war and skyrocketed with the recent food price measures.a

Implementing sound macroeconomic policies, such as prudent fiscal management, monetary policy, and structural reforms, will be crucial in tackling inflation and restoring economic stability in Iran.

Inflation has had a disproportionate impact on lower-income households, despite being broad-based. Besides the general impact of inflation on worsening income inequality, the current inflation was felt the most by vulnerable households. Inflation has been higher in rural areas than in urban areas over the past few years (Figure B1.1). The inflation gap (the difference between the bottom and top deciles) was in favor of low-income families up to late 2020, but since April 2021, the low earners have been experiencing higher inflation, which has been worsened by the recent policy reform in June 2022 (Figure B1.2). Over the past five years, cumulative inflation has been 25 percentage points higher for the bottom three income deciles than for the top three deciles.

Inflation disproportionately impacts the poor as they consume items that have experienced a significant price surge, as shown in Figure B1.3

**Food, Housing, and Transport are the main contributors to inflation.** Food and housing make up about 80 percent of the expenditure basket for the lowest income decile, compared to only 50 percent for the highest decile. These two categories were also the primary drivers of headline inflation, accounting for over 50 percent of it, particularly after the recent policy reform that caused a surge in food prices.

Despite the surge in prices caused by the recent policy reform, the overall impact of the reform, when combined with cash transfers, could improve the welfare of low-income deciles. An initial assessment shows that under the assumption of having the same consumption patterns as the previous year (based on household budget survey data), the increase in average expenditure due to higher prices is higher for higher-income groups because they tend to spend more. Taking into account the cash transfers and the increase in expenditures for each income group, the overall impact of the policy is positive for the bottom four income groups. The impact on the middle-income groups (decile 5 to 7) is minimal, and the policy has an adverse effect on the top three income groups, particularly the top income decile, as reported by Salehi-Isfahani (2022).

---

*a In May 2022, the government stopped subsidizing imports of certain essential foods and increased the administered price of some essential foods including chicken, eggs, dairy, and cooking oil. To shield low-income families from soaring prices, a direct cash transfer of US$14 (US$12) per individual per month (inclusive of existing cash transfers) was also provided to the lowest three deciles (the remaining deciles except for the top decile). For further information refer to Iran Economic Monitor, Spring 2022.

---

(continued on next page)
BOX 1 HOW INFLATION AFFECTS INCOME GROUPS (continued)

FIGURE B1.1 • Consumer Price Inflation in Rural Areas Has Been Higher in Recent Years

Source: SCI and World Bank staff calculations.

FIGURE B1.2 • The Inflation Felt by the Lowest Income Deciles Has Surpassed Those for Top Deciles, Especially after the Recent Food Price Measures in June 2022

Source: SCI and World Bank staff calculations. Note: The inflation gap is the difference between inflation at the bottom and top decile. The green indicates higher inflation for the top decile and the blue indicates higher inflation for the low decile.

FIGURE B1.3 • Food, Housing, and Transport Are the Main Contributors to Inflation

Source: SCI and World Bank staff calculations.
The depreciation of the rial and inflationary expectations fueled high inflation. Following a stalemate in the nuclear talks along with prolonged protests, the rial depreciated by about 40 percent in 2022/23, and the gap between the parallel market and Central Bank’s auction exchange rate (NIMA rate) widened significantly, indicating elevated inflationary expectations (Figure 14). In response to high fluctuations in the foreign exchange market and only six months after the elimination of the subsidized exchange rate, the CBI announced a fixed rate at IRR285,000/US$ for the import of essential goods and equipment and intermediate goods, which was later limited to essential goods only. The depreciation in the rial against the dollar combined with the increase in global prices led to the rapid growth of import prices, which translated to a further surge in the producer price index in 10M-2022/23 (33.3 percent, y/y). One of the main drivers of inflation in the producer price index was a 52.9 percent increase in agriculture prices due to the elimination of subsidized exchange rates on imported agriculture inputs.

The expansions of monetary aggregates contributed to inflationary pressures. The monetary base (M0) grew by 42.4 percent, above its long-term average, indicating challenges in controlling the growth of the money supply. However, the broad money (M2) growth slowed to 31.6 percent (y/y) in 2022/23 thanks to measures that capped banks’ balance sheets and an increase in the required reserves for more risky banks (Figure 15). The main driver in M0 growth in 2022/23 was central bank’s claims on banks, reflecting intensified liquidity problems (Figure 16). The share of quasi-money in M2 reached...
a record low of 74 percent, down from 83 percent two years ago, this further highlights growing inflationary expectations.

To control the money supply and skyrocketing inflation, the CBI raised interest rates after three years. The CBI implemented inflation targeting for the first time in May 2020 and set the corridor for interest rate between 14 percent and 22 percent. In February 2023, the CBI increased the floor rate to 17 percent and the cap rate to 24 percent, due to increased money market demand which had pushed the interbank interest rates to a record high. In addition, the CBI allowed banks to increase interest rates on deposits and loans by an average of 5 percent. The maximum interest rates on long-term deposits are about 25 percent, still far below the inflation of about 45 percent.

The banking system is currently grappling with multiple challenges which require immediate reforms. Over 70 percent of banks in Iran do not meet the capital adequacy ratio (CAR) and almost half of them have negative CAR. This poses a serious risk of bankruptcy, which is exacerbated by the increased provision of directed credit by the government. Despite having a high average non-performing loan (NPL) ratio\(^{19}\) of 16.2 percent in 2021/22, this does not include rollover loans, which make up a significant portion of the loans. The accumulation of NPLs and insufficient capital creates a fertile ground for bank failure, increasing the risk of a financial crisis. These challenges are rooted in fiscal dominance, institutional weakness in the central bank, and general misconduct by banks, including corruption. Reforming the banking sector presents several challenges, including the size of some distressed banks, which are deemed “too big to fail,” making it difficult to avoid the risk of a bank run. To mitigate the risks in the banking system, the central bank has recently taken some steps, such as increasing the required reserve ratio to 15 percent and limiting banks’ balance sheet expansion to 1.5 to 2.5 percent. These measures have helped to moderate the growth rate of M2. However, banks still face liquidity shortages and run risks because customers are withdrawing cash deposits. As a result, banks have had to limit large withdrawal amounts and offer higher interest rates on deposits to avoid further exacerbating their liquidity problems.

The stock market in 2022/23 was volatile before adjusting to the currency depreciation in 2023/24. After experiencing some gains in early 2022/23 due to progress on nuclear talks and higher global energy prices, the selloff in the stock market continued due to dampened market sentiments. The latter was driven by the deadlock in nuclear negotiations and the stagnation in global markets. The market, however, rebounded significantly due to elevated inflationary expectations and the depreciation of rial (Figure 17). In March and April 2023, the stock market registered a record high, driven by the depreciation of the rial that makes exporting companies, including the petrochemical industry, more profitable in local currency terms.

External Sector

The surge in oil prices was the main driver of the current account surplus in H1-22/23. Exports grew by 40 percent in H1-22/23 and surpassed

\(^{19}\) There are several factors contributing to high non-performing loans (NPLs) in Iran, including the lack of proper credit risk assessment, the use of non-financial criteria for loans, moral hazard behavior in projects guaranteed by the government, and poor supervision by the central bank, for further information see Zahedi & Azadi (2018) and Azadi et al. (2022).
growth in imports (21 percent), leading to a current account surplus of 3.4 percent of annual GDP (US$13.4 billion). Stronger growth of oil exports (57 percent) compared to non-oil exports (22 percent), drove the share of oil exports to 58 percent in H1-22/23 (a three-year high). Services trade also rebounded by 55 percent but remained slightly below their pre-pandemic level (Figure 18). This current account surplus was largely offset by the net capital account deficit (US$ 12.8 billion), reflecting capital flight and low FDI inflows, and resulted in a slight decline in international reserves (Figure 19).

Rising international commodity prices contributed to higher non-oil trade in 2022/23. In 2022/23, faster growth in imports (12.5 percent) compared to non-oil exports (9.4 percent), led to a widening of the non-oil trade deficit to about 2 percent of GDP (US$6.5 billion), its highest level since the re-imposition of US sanctions in 2018 (Figure 20). Prices were the main driver of trade dynamics as the total volume of exports and imports contracted by 0.6 percent and 9.8 percent, respectively compared to 2021/22.

China remained the top destination of non-oil exports in 2022/23. Other exporting partners include Iraq, UAE, Turkey, and India, accounting for over 71 percent of total exports (Figure 21). India returned to the top 5 export destinations, replacing Afghanistan where exports declined by 11.2 percent due to the political situation and the lower purchasing power. Petrochemical products accounted for 44.5 percent of total non-oil exports and liquid natural gas was the main non-oil export items, accounting for 14 percent of Iran’s non-oil exports.

Imports continued to shift away from Europe following the intensification of sanctions and Iran’s policy response. In 2022/23, UAE was the top exporter to Iran, accounting for about one-third of Iran’s imports (Figure 22). Imports

20 Over the past six years, Iran’s capital account balance has experienced consecutive deficits, which can be attributed in part to significant capital flight caused by economic uncertainty in the country. This trend indicates a lack of confidence in the Iranian economy and its investment opportunities, which has led investors to seek out more stable and predictable investment options abroad. Addressing the underlying causes of economic uncertainty in Iran, such as inflation, sanctions, and political instability, will be essential to reversing this trend and attracting much-needed investment to the country.

21 It is worth noting that a significant portion of imports to Iran that is reported as originating from the UAE are actually transshipped through the country and originally come from other countries such as China. As a result, a more detailed analysis of product origin would likely reveal a larger share of imports coming from countries such as China.
from China increased by 23.5 percent in 2022/23, and imports from India also increased by 86.3 percent overtaking Germany. Cellphones and essential food items such as rice, wheat, corn, and soybean were the top imported items in 2022/23. The concentration of trade among key import partners has increased with the top four importers accounting for 72.2 percent of total imports in 2022/23 compared to 68.9 percent in 2021/22 (see Box 2 for more details on recent trends in Iran’s trade). While the country is shifting away from Europe to Asian countries to mitigate the impact of any future sanctions or disruptions in global trade, increased concentration makes the country vulnerable to shocks from a few key import partners.
Iran’s external trade has been influenced by various factors over the past decade, including economic sanctions, oil price fluctuations, the pandemic, and the country’s trade policies (Figure B2.1). The negative impact of sanctions on Iran’s exports has been significant, with annual export declines of 17 percent between 2012 and 2014 during the first round of sanctions and 26 percent between 2019 and 2020 due to the reimposition of US sanctions and the pandemic’s effects. Sanctions restricted Iran’s export market and increased transaction costs. In addition, sanctions have adversely impacted technology transfer and modernization of production processes as well as attracting foreign investment. Furthermore, domestic producers’ competitiveness has been weakened by higher prices of imported equipment caused by a combination of the significant depreciation of the domestic currency and restrictions on international banking and services.

Over the past few decades, a notable shift in trade from Europe to Asia helped to lessen the impact of the economic sanctions. Since the late 1990s, the share of trade with Asian countries has been increasing at the expense of European partners (Figure B2.2). This trend has become more pronounced during the sanction period. The primary driver of this shift in trade destinations has been the significant increase in trade with China. In the late 1990s, China accounted for only about four percent of Iran’s total trade, but this figure has since grown to around 30 percent (Figure B2.3).

In recent years, trade has become increasingly concentrated. This trend is illustrated in Figure B2.4, which shows that the share of Iran’s top trading partners has increased from about 50 percent in the early 2000s to over 70 percent in recent years, indicating stronger ties with these partners. This concentration of trade is a cause for concern as over 90 percent of Iran’s trade is only with 15 partners, making it more vulnerable to any risks associated with their economic activity. Moreover, despite efforts to diversify its trade composition, non-oil exports are still dominated by petrochemical products and oil derivatives (HS27, HS29, and HS39), which account for about half of Iran’s non-oil exports. This overreliance on a few sectors and products for non-oil exports leaves Iran’s economy vulnerable to fluctuations in global demand and prices, posing a risk to the sustainability of its trade. Developing strategies to promote non-oil exports as well as diversifying export destinations and import sources can help address trade imbalances and support the country’s external stability.

In response to the shifts in trade and the impact of economic sanctions, some domestic firms have adjusted their business strategies. For instance, exporting firms have increased their presence in the domestic market, thereby transferring most of the shock from the sanctions to non-exporting firms as they face greater competition (Ebadi, 2022). Additionally, around two-thirds of Iran’s non-oil exports were redirected to non-sanctioning countries, mitigating some of the impact of export sanctions (Haidar, 2017). Micro-firms have shown more resilience to the impact of sanctions compared to larger firms. This can be attributed to their smaller scale, limited access to formal financing, higher focus on local markets, and lesser export orientation (Cheratian et al., 2022). These adjustments have helped to partially offset the effects of sanctions on employment and the supply of goods and services. Despite these adjustments, the private sector also faces an uncertain investment environment. These relate to high fluctuations in exchange rates in the absence of financial hedging instruments, frequent policy changes together with government intervention in the markets rendering long-term investments unattractive. Furthermore, underinvestment in infrastructure and limited access to finance reduce productivity and profitability. Addressing these challenges will be critical to foster a more diversified and resilient private sector that can withstand the impact of external shocks.

**Figure B2.1** • Iran’s External Trade Has Been Fluctuating Significantly over the Last Decades...

**Figure B2.2** • ...and Has Shifted from Europe toward Asia...

(continued on next page)
BOX 2 IRAN’S INTERNATIONAL TRADE ADJUSTMENT (continued)

FIGURE B2.3 • ...Mainly due to the Increasing Role of China in Iran’s Trade

FIGURE B2.4 • Iran’s Trade Concentration Has Increased during the Last Two Decades

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

Iran’s economic outlook is shaped by ongoing economic sanctions, declining global demand, and energy and water shortages. Real GDP growth is predicted to moderate to an annual average of 2.1 percent in 2023/24 to 2025/26, lower than in other major oil exporters due to the impact of sanctions on both oil and non-oil sectors (see Table 2 for details). Oil GDP is expected to grow slowly, partly because of weaker global demand. Non-oil GDP growth is projected to remain below potential due to a lack of investment in recent years. The agriculture sector is expected to remain vulnerable to droughts and the impact of climate change. Non-oil industries and services are also anticipated to grow but remain constrained by ongoing production capacity expansion challenges. Domestic consumption, which has been the main driver of growth in previous years, is expected to remain weak as purchasing power has declined after four years of high inflation.

Fiscal pressures are forecast to remain high as expenditures are rising and oil revenue growth is limited. Despite the recent progress in tax collection, the subdued economic activity due to weak non-oil growth is likely to limit tax income, while oil revenues are projected to decrease. In addition, government expenditures are expected to increase due to higher wage bills and transfers to compensate for the high inflation and the increased cost of living. Furthermore, in an environment of high inflation nominal revenues are also expected to come under pressure as the time lag between economic activity and tax collection would translate to lower real revenues. As a result, the fiscal deficit is forecast to gradually widen in the medium term, to 2.4 percent of GDP by 2025/26.

High inflation and continued tepid job creation are projected to have a negative impact on households’ welfare. Inflationary expectations, pressures on the currency, and a growing budget deficit are expected to keep inflationary pressure elevated in the medium term (over 40 percent in 2023/24–2025/26). In addition, the prospect of job creation remains challenging. Agriculture, a labor-intensive sector, is adversely affected by water scarcity and high temperatures, while slower growth in non-oil

---

sectors, especially the services sector, the largest employer in the economy, is anticipated to fall short of needed job creation. The private sector also continues to encounter challenges such as macroeconomic volatilities and an uncertain investment environment. These factors are expected to reduce household welfare and disposable income. Although government transfers can alleviate some of these pressures, this will come at a fiscal cost that could reinforce inflationary pressures and reduce fiscal space required for pro-growth investments.

On the external side, the current account surplus is projected to gradually decrease (to 2.8 percent of GDP by 2025/26) due to the projected decline in oil prices and subdued global demand. Oil exports face growing competition from other major exporters in Iran’s primary export destinations. At the same time, higher capital outflows and limited access to international reserves will add pressure to foreign reserves and the value of the rial.

Risks and Opportunities

Risks to the economic outlook primarily relate to the trajectory of economic sanctions and global economic developments, especially in the oil market. Iran’s growing economic exposure to China and overall trade concentration leaves it vulnerable to disruptions to existing trade and finance channels. A sharper fall in oil prices due to a decline in global demand following tighter global monetary policy and reduced growth projections in China would negatively impact the growth outlook. On the domestic front, resumption of social protests, industrial strikes, and internet disruptions could have harmful and long-lasting effects on employment and economic activities. Moreover, lower rainfall can pose a threat to the agriculture sector and lead to energy shortages. On the upside, a partial waiver or full removal of sanctions would provide a significant boost to oil and non-oil growth over the projection period. Recent improvement in relations with Saudi Arabia and other southern neighbors if followed with economic links and investments would help meet part of the financing of development needs and trade linkages through regional integration could create new growth opportunities.

Iran, however, continues to face significant climate change challenges that can adversely impact economic prospects. Recurring droughts and declining precipitation threaten agricultural production and employment in the sector, posing significant risks to food security and livelihoods. To overcome the water shortage in agriculture, effective water resource management, improved water use efficiency with water demand management policies, developing suitable institutions and policies, and collaborating with riparian countries can mitigate part of the challenge. Moreover, extreme temperatures increase the demand for energy, while lower rainfall decreases the supply of energy, particularly hydropower energy. In the absence of necessary investments and energy price reforms, this can lead to energy shortages and adversely impact industrial production. Gradual energy price reforms, investment in renewable energy, and improving energy efficiency are crucial measures for adaptation and mitigation of these risks.

Setting realistic goals in the next development plan and outlining a detailed path to enable future growth and mitigate risks will be crucial to overcome economic challenges. The seventh development plan targets an annual average economic growth rate of 8 percent between 2022/23 to 2026/27, with a focus on boosting productivity and keeping inflation at single digits. However, given the current economic situation and the track record of previous plans, the plan’s ambitions need to be evaluated. The low performance of previous development plans can be attributed to various factors, including sanctions, the

23 For more information see the Special Focus chapter in the Iran Economic Monitor, Spring 2022.

24 The sixth five-year development plan (2017/18-2021/22) fell short of reaching most of its targets. Despite an annual economic growth target of 8 percent, growth was 1.2 percent per annum. Inflation was about 5 times higher than the plan goal of 8.8 percent annually. Contrary to the projected 21.4 percent annual growth in investment, capital formation fell short of depreciation costs and contracted by 5.8 percent annually. The FDI and portfolio investment targets of US$15 billion and US$20 billion, respectively, did not materialize and the external account witnessed US$45 billion of capital outflow during the period. Annual productivity growth was negligible while the target envisioned an annual growth of 2.8 percent.
pandemic, poor governance, and other shortcomings in achieving preconditions for growth. To achieve sustainable economic growth, the plan needs to prioritize structural reforms and address key challenges such as lack of jobs, low productivity, and inadequate infrastructure. A focus on private sector-led development, export diversification, and promotion of foreign investment can help the economy move towards the plan’s goals.

**Coordination between monetary and fiscal policies will be crucial in achieving sustainable economic growth while managing inflation.** Fiscal policy would also be required to be geared towards managing the budget deficit by reducing tax exemptions, cutting back on unnecessary and unproductive current expenditures, rationalizing current expenditures while protecting the most vulnerable, and improving the efficiency of public investment. Financing of the fiscal deficit should be prioritized through bond issuance to avoid monetization of the deficit, which could exacerbate inflationary pressures. To anchor inflation expectations, the central bank needs to prioritize price stability, avoid directed lending and ensure the capital market and banking system stability.\(^25\) Addressing banking system challenges requires enhanced bank supervision, the implementation of international reporting standards and best practices for asset classification, liquidity management, and internal controls. Other priorities for banking reform include creating a comprehensive framework for contingency and crisis management, strengthening the asset quality examination process, conducting an asset quality review to identify viable banks for recapitalization and to improve capital and liquidity buffers and resolving non-viable banks, and securitizing government debt to generate cash flow for the banks to use as collateral in the interbank market.

\(^{25}\) Implementing a medium-term plan to curb inflation can provide breathing room for banks to adjust their balance sheets and for economic participants to plan for their economic activities with more confidence. It can also help to establish credible signals that inflation expectations will be managed effectively.
|---------|---------|---------|---------|---------|---------|---------|

**Real sector** (Annual percentage change, unless otherwise stated)

- **Real GDP at market prices**: -2.7 3.3 4.7 3.8 2.4 2.1 2.0
- **Real GDP at factor cost**: -2.4 4.1 4.4 4.0 2.4 2.1 2.0
- **Real GDP per capita**: -3.7 2.5 4.0 3.1 1.7 1.3 1.3
- **Real non-oil GDP**: 1.7 3.6 3.9 2.6 1.9 1.6 1.5
- **Real oil GDP**: -36.2 9.6 10.1 9.8 4.0 3.8 3.8
- **Total crude oil production (mbpd)**: 2.2 2.0 2.5 2.7 2.8 2.9 3.1

**GDP supply side components**

- **Agriculture**: 9.2 3.2 -2.6 1.1 1.0 0.9 0.9
- **Industry (including oil)**: -9.7 7.8 3.2 7.4 3.1 2.1 1.9
- **Services**: -0.2 2.2 6.5 2.7 2.4 2.3 2.2

**GDP demand side components**

- **Private consumption**: -4.8 0.5 3.9 8.7 2.2 1.8 1.7
- **Government consumption**: -5.8 -0.9 8.3 -3.6 2.3 2.4 2.6
- **Gross fixed capital formation**: -7.0 3.2 0.0 6.7 3.7 2.9 2.9
- **Exports, goods and services**: -17.3 -12.8 5.2 8.2 4.6 4.1 3.3
- **Imports, goods and services**: -32.5 -29.7 24.1 7.5 4.2 3.3 3.0

**Money and prices**

- **Oil price (US$/bbl)**: 68 61 41 100 85 83 81.7
- **CPI Inflation (p.a.)**: 41.2 47.1 46.2 46.1 49.6 44.8 40.9
- **Monetary base (M0)**: 32.8 30.1 31.6 42.4 n/a n/a n/a
- **Broad money (M2)**: 31.3 40.6 39 n/a n/a n/a n/a
- **Banking system credit**: 26 94.8 56.3 n/a n/a n/a n/a
- **Nominal interest rate (percent)**: 18.9 17.5 19.6 n/a n/a n/a n/a
- **Nominal exchange rate, parallel market (IRR/USD)**: 129,183 228,872 259,476 334,103 n/a n/a n/a

**Investment & saving**

- **Gross capital formation**: 29.9 34.8 31.8 32.8 31.0 29.1 27.7
- **Gross national savings**: 29.5 34.4 35.4 36.8 34.5 32.3 30.5

**Government finance**

- **Total revenues**: 9.7 7.3 11.0 10.6 10.5 10.8 10.8
- **Tax revenues**: 5.9 4.8 5.1 5.1 5 5.2 5.3
- **Total expenditures**: 14.2 13.0 13.3 12.8 12.8 13.1 13.3
- **Current expenditures**: 12.3 11.1 11.2 11.4 11.8 12.1 12.4

(Percent of GDP, unless otherwise stated)
<table>
<thead>
<tr>
<th>Table 2 • Iran: Selected Economic and Financial Indicators, 2019/20-2025/26 (continued)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net lending/borrowing (overall balance)</strong></td>
</tr>
<tr>
<td>-4.5</td>
</tr>
<tr>
<td><strong>External sector</strong></td>
</tr>
<tr>
<td>Current account balance</td>
</tr>
<tr>
<td>-0.4</td>
</tr>
<tr>
<td><strong>Population and labor market</strong></td>
</tr>
<tr>
<td>Population (million)</td>
</tr>
<tr>
<td>82.7</td>
</tr>
<tr>
<td>Participation rate (percent)</td>
</tr>
<tr>
<td>44.1</td>
</tr>
<tr>
<td>Unemployment rate (percent)</td>
</tr>
<tr>
<td>10.7</td>
</tr>
<tr>
<td><strong>Memorandum Items:</strong></td>
</tr>
<tr>
<td>Nominal GDP (IRR billion)</td>
</tr>
</tbody>
</table>
THE GENDERED IMPACT OF THE COVID-19 CRISIS ON THE LABOR MARKET IN IRAN

The first year of the COVID-19 pandemic saw a marked deterioration in labor market outcomes. Despite sizeable government interventions to sustain the economy, approximately 1 million jobs were lost, and labor force participation contracted by 3 percentage points. Iranian women were the most affected: two out of three jobs that were lost between 2019/20 and 2020/21 were previously held by women. The gendered impact of the crisis contributed to widening the disadvantage of Iranian women in the labor market. Most importantly, the gains in female labor force participation, slowly accumulated since 2011, vanished. Consistent with what was observed in other countries, women with young children were the most affected by the crisis. The combined effect of school closures and unequal intra-household allocation of care responsibilities, which is associated with prevailing gender norms, pushed Iranian women with children out of the labor force.

The COVID-19 crisis has had a dramatic impact on the labor market of both developed and developing countries. From a labor market perspective, the COVID-19 crisis can be characterized as both a negative shock to labor demand, with closures or restrictions in operating capacity of businesses in sectors more affected by health-related containment measures, and as a shock to labor supply. For example, because workers are concerned about health risks or because the closing of schools and nurseries due to lockdown measures implied an increase in care responsibilities within the household and hence a reduction in the time potentially available for paid work on the labor market.
A common finding across the international literature on the subject is the differential employment impact of the pandemic across groups, with women, youth, and informal sector workers being among the most affected. In particular, the issue of a gendered labor market impact of the COVID-19 pandemic has been analyzed in several countries. Depending on the context, the gendered impact of the crisis has been related to a gender bias in labor demand shocks—for example, because women were more likely to work in sectors or jobs more exposed to the crisis—or a gender bias in labor supply shock—due to prevailing differences in care and domestic responsibilities between men and women—or a combination of the two.

Iran was among the world’s early epicenters of the pandemic and the worst-hit country in the Middle East. The Islamic Republic of Iran has been hit hard by the COVID-19 pandemic, which has claimed over 145 thousand lives and affected close to 7.56 million people out of a population of 85 million. The first COVID-19 case was recorded as early as February 19th, 2020, and, by March 4th, authorities announced that the virus had spread to nearly every province. Lockdown measures ensued by the end of March, with travel bans, closure of economic activities, religious sites (including mosques), and all grades of educational institutions. Starting April, restrictions began to ease, albeit at a different rate depending on the local evolution of the pandemic. Overall, compared to other Mashreq countries, Iran sustained relatively less stringent health-related containment measures throughout the entire first year of the COVID-19 pandemic (Figure 24).

Containment measures imposed by the government to limit the spread of the pandemic were accompanied by a substantial recovery stimulus package. Government support to both households and firms was sizeable, amounting to approximately IRR 1,000 trillion or close to 5 percent of GDP. To support households, the government introduced an emergency cash transfer benefiting 4.3 million households (corresponding to 18 percent of the total population), in addition to providing micro-small loans and expansion

26 The education sector was among the most affected by the government’s measures put in place to contain the spread of the pandemic. Schools, starting from kindergartens, remained fully closed nationally during the first three months of the crisis. Starting May 16th, schools were allowed to reopen only in areas classified at low risk of COVID-19 transmission and with caps in terms of in-person attendance. Full nationwide in-person reopening of schools was only achieved in April 2022, more than two years after the start of the pandemic.

27 Starting April 26, 2020, the management of COVID-19 related restrictions was implemented depending on the number of cases recorded at the regional level. In particular, regions, provinces, and counties were classified according to a three tiers system (red, yellow, white) depending on the local number of COVID-19 infections and deaths.
of unemployment insurance and minimum wages.\textsuperscript{28} Furthermore, businesses were also supported through concessional loans and a moratorium on all payments to the government for three months (including taxes, social security contributions, interests on loans, and utility bills).

Nevertheless, approximately 1 million jobs were lost in the first year of the pandemic. Despite sizable government intervention and positive GDP growth, the employment to working age population (WAP) rate declined by 2 percentage points between 2019/20 and 2020/21, corresponding to approximately one million jobs being lost among the population aged 15 and above. Interestingly, and contrary to what was observed in other countries, the decline in employment did not translate into a higher level of unemployment—unemployment even dropped during the period, but into a decline in labor force participation. Overall, between 2019/20 and 2020/21, labor force participation declined by 3 percentage points, going from 44.05 to 41.26 percent, and unemployment declined from 10.65 to 9.61 percent.

Iranian women were most affected by the labor market impact of the pandemic. In Iran, two out of three jobs that were lost between 2019/20 and 2020/21 were previously held by women. Moreover, the higher decline in employment for Iranian women was accompanied by a relatively stronger reduction in female labor force participation. The gendered impact of the pandemic is clearly seen on the extensive margin, with Iranian women being more likely than Iranian men to withdraw from the labor force, after either losing their jobs (higher reduction in female employment rate compared to men) or after terminating their search for employment (higher reduction in female unemployment rate compared to men)—Table 3. On the other hand, Iranian men were more likely than women to reduce the intensity of their labor market engagement, as shown by a relatively larger reduction in hours worked an increase in underemployment compared to Iranian women (Table 4).

\textsuperscript{28} The stimulus package supporting households included the following: (i) IRR80 trillion allocated for interest-free loans of 10 million Rials (20 million Rials for female-headed households); (ii) IRR120 trillion allocated for purchasing medical equipment; (iii) IRR 50 trillion allocated to the unemployment insurance fund, and (iv) raising of legal minimum wage by 20 percent.

### TABLE 3 • Changes in Participation and Unemployment 2019/20 and 2020/21, by Gender

<table>
<thead>
<tr>
<th></th>
<th>Participation rate</th>
<th>Employment to WAP rate</th>
<th>Unemployment rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>2019/20</td>
<td>17.7</td>
<td>71.1</td>
<td>14.02</td>
</tr>
<tr>
<td>2020/21</td>
<td>13.9</td>
<td>68.66</td>
<td>11.72</td>
</tr>
<tr>
<td>Difference (y/y) pc points</td>
<td>-3.1***</td>
<td>-2.44***</td>
<td>-2.3***</td>
</tr>
</tbody>
</table>

**Table 3** • Changes in Participation and Unemployment 2019/20 and 2020/21, by Gender

<table>
<thead>
<tr>
<th></th>
<th>Differential covid impact (F/M)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.27***</td>
</tr>
</tbody>
</table>


Notes: Stars indicate levels of significance of t-test on equality of means between the two years: * p<0.1, ** p<0.05, *** p<0.01. Survey weights were used in the analysis.

### TABLE 4 • Changes in Work Hours and Underemployment 2019/20, 2020/21, by Gender

<table>
<thead>
<tr>
<th></th>
<th>Hours worked (total)</th>
<th>Hours worked (main job)</th>
<th>Under-employment rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>2019/20</td>
<td>32.6</td>
<td>46.7</td>
<td>33.8</td>
</tr>
<tr>
<td>2020/21</td>
<td>31.2</td>
<td>44.1</td>
<td>34.0</td>
</tr>
<tr>
<td>Difference (y/y)</td>
<td>-1.4***</td>
<td>-2.6***</td>
<td>0.2</td>
</tr>
</tbody>
</table>

**Table 4** • Changes in Work Hours and Underemployment 2019/20, 2020/21, by Gender

<table>
<thead>
<tr>
<th></th>
<th>Differential covid impact (F/M)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.54***</td>
</tr>
</tbody>
</table>


Notes: Underemployment is defined as the share of employed individuals working less than 44 hours per week and willing/able to work more hours. Stars indicate levels of significance of t-test on equality of means between the two years: * p<0.1, ** p<0.05, *** p<0.01. Survey weights were used in the analysis.
The impact of the pandemic has been heterogeneous across job types, with men and women working in the informal sector being the most affected. Similar to what was observed in other countries, informal sector workers were among the most affected by the pandemic. Overall, while the informal sector accounted for 42 percent of employment in 2019/20, 62 percent of the jobs lost in 2020/21 were in this sector. However, differences in informal sector employment between Iranian men and women are not large enough to explain observed gendered impact of the pandemic. In fact, as shown in Figure 25, in 2019/20, female workers were only 1 percentage point more likely to be in the informal sector compared to men. Moreover, salaried women were more likely to be employed in the public sector, and therefore potentially more protected against layoff during the crisis. Interestingly, as shown in Figure 26, while the bulk of job losses for both male and female workers was concentrated in the informal sector, the gendered impact of the pandemic was particularly evident among salaried workers in the private sector. In fact, while male employment among private sector employees increased by approximately 133 thousand units during the first year of the pandemic, female employment declined by 242 thousand units.

Irrespective of the job type, sector of employment or individual characteristics, Iranian women who worked in 2019/20 are less likely than men to have retained their jobs one year into the pandemic. While differences in job type do not seem to explain the observed differential employment impact of the pandemic between Iranian men and women, other factors—such as differences in individual characteristics or sector of employment—could still be at play. However, after controlling for individual and job characteristics in regression settings, results indicate that, compared to men, Iranian women who were working before the pandemic are significantly less likely to have retained their jobs one year into the crisis.

29 In this analysis, the definition of the informal sector encompasses self-employment in agriculture and non-agriculture sectors, contributing family workers, and unpaid apprentices.

30 Between 2019/20 and 2020/21, employment in the informal sector declined by 6 percent, against 3 percent drop in formal sector employment, leading to a one percentage point decline in informality.

31 In order to better investigate the differential gendered impact of the pandemic we take advantage of the rotating panel component of the LFS and restrict the sample to individuals who were interviewed at least one-time pre.
On average, women who were employed in the informal sector had 32 percentage points lower probability to remain employed during the first year of the pandemic compared to men also working in the informal sector, whereas the corresponding gap is the lowest (5 percentage points) among women working in the public sector. Women’s disadvantage is considerable among salaried workers in the private sector where the gender gap is as high as 26 percentage points.32

Increased family care responsibilities during the first year of the pandemic have played an important role in determining a worsening of Iranian women’s labor market outcomes. Changes in family responsibilities due to COVID-19 school closures played a significant role in determining employment losses among women. In fact, irrespective of job type, sector of employment, and individual characteristics, the gender gap was the highest among individuals with children in the 0–5 age group, while significantly narrows among individuals with no children below the age of 14. In addition to determining a lower probability to retain employment for women who were employed before the start of the pandemic, childcare responsibilities have also played an important role in determining a higher reduction in female labor force participation compared to men. In fact, controlling for individual characteristics, the impact of the pandemic on the gender gap in labor force participation was the strongest for individuals with young children in the 0–5 age group, whereas it disappears once restricting the sample to men and women without any children below the age of 14.

The decline in female labor force participation during the first year of the pandemic eroded 10 years of progress. Over the last decade, the Iranian economy has benefited from a progressive increase in female labor force participation, which went hand in hand with an increase in the education level of women in the working-age population (Figure 27: Trends in female labor force participation and tertiary educated women in the working age population). The COVID-19 pandemic has dramatically reversed this trend, basically eroding 10 years of hard-won progress. The results of the analysis indicate that Iranian women and mothers in particular have been

![Figure 27](image)

**FIGURE 27 • Trends in Female Labor Force Participation and Tertiary Educated Women in the Working Age Population**

Source: LFS various years.

and post-March 2020 and who were employed before the pandemic. In particular, we estimate the following model:

\[
P(Y_{i,2020} | Y_{i,2019} = 1) = \alpha_0 + \beta \text{Female}_i + \text{Jobtype}_{i,2019} \times \delta (\text{Female}_i, \text{Jobtype}_{i,2019}) + \eta X_i + \gamma Z_{i,2019} + \epsilon_i
\]

where the dependent variable is the probability of being employed in 2020/21 for individual \(i\) conditional on him/her holding a job \(j\) before the start of the pandemic. The main variable of interest is the interaction term between a dummy indicating female workers and a categorical variable indicating the job type before the pandemic, which can be either informal (omitted category), a salaried worker in the private sector, or a salaried worker in the public sector. Controls include a set of individual characteristics \(X_i\) which includes age, age squared, education, marital status, urban residence, and province dummies. Moreover, in order to capture the fact that some sectors might have been disproportionately affected by the crisis, sector dummies for the job held in 2019/20 were included in the model.

32 Descriptive analysis further reveals that women working as private sector employees tend to have shorter job tenure compared to their male counterparts and they are less likely to be employed in micro-businesses. Still, even after controlling for differences in observable characteristics, a sizeable gender gap persists.

33 Controls included in regression analysis are age, age squared, education, marital status as well as season, urban, and province dummies.
more vulnerable to the labor market shock induced by the pandemic. Whether or not this negative shock can be reversed as the management of the COVID-19 pandemic is normalized and the economy recovers from the crisis remains to be seen and might require addressing challenges that women face in reconciling family and work responsibilities as well as any residual discrimination on the labor market.
Ebrahimi S. (2022), Monthly report on Industrial Production Index using TSE listed companies’ data – Nov/2022, Monetary and Banking Research Institute, Central Bank of the Islamic Republic of Iran.
Iran Migration Outlook (2021), Iran Migration Observatory, Sharif Policy Research Institute, Sharif University of Technology.