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Iran Economic Monitor

Weathering Economic Challenges

Special Focus Topic:

Understanding the latest poverty trends in Iran (2009–2016)

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Fall 2018

Middle East and North Africa Region

WORLD BANK GROUP
Macroeconomics, Trade & Investment

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Cover photo: The Meidan Emam in Esfahan, also known as Naghsh-e Jahan. Courtesy of Faya Hayati.
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PREFACE

The Iran Economic Monitor provides an update on key economic developments and policies over the past 12 months. 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 team. This fifth issue was prepared by Faya Hayati (Economist, Task Team Leader), Majid Kazemi (Economist) and Maria Reinholdt Anderson (Consultant), under the general guidance of Kevin Carey (Global Practice Manager) and Saroj Kumar Jha (Regional Director). The Special Focus Section was written by a Poverty and Equity Global Practice team consisting of Aziz Atamanov (Economist), Matthew Wai-Poi (Senior Economist), Mohammad-Hadi Mostafavi (Consultant) and Djavad Salehi-Isfahani (Consultant) under the guidance of Benu Bidani (Global Practice Manager). Kamer Karakurum-Ozdemir (Senior Economist), Syed Mehdi Hassan (Lead Financial Sector Specialist) and Janet Minatelli (Senior Country Officer) provided helpful comments.

Muna Abeid Salim (Senior Program Assistant) print-produced the report. The team is grateful to the Government of Iran for its contributions to this publication.

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 Faya Hayati (fhayati@worldbank.org) or Majid Kazemi (mkazemi@worldbank.org). Questions from the media can be addressed to Mona Ziade (mziade@worldbank.org).

EXECUTIVE SUMMARY

Iran's GDP growth in 2017/18 eased considerably as the effect of large surge in oil revenues in the previous year dissipated.

After undergoing an oil-based bounce in the economy in 2016/17, the economy registered a 3.8 percent growth in 2017/18 with the overwhelming majority of growth coming from the non-oil sectors. More than half of the growth can be attributed to services which grew by 4.4 percent. Oil, agriculture and services sectors are now back above the levels of activity they were prior to sanctions in 2012. But there was not a strong bounce back in the past two years for key sectors such as construction and trade, restaurant and hotel services following the stagnation in growth during the period of sanctions. The oil and gas sector witnessed a growth of 0.9 percent. Limited by the (Organization of the Petroleum Exporting Countries) OPEC+ quota for the agreed period, increasing production capacity or maintaining current production levels in the coming years would require a substantial increase in investments in the sector. However, the reintroduction of sanctions on the oil and gas sector in November 2018 by the United States (US) will mean the issue of export payments rather than investment needs will come to the fore.

The Government's prudent management of fiscal buffers will help Iran to deal with the rising inflation rate and depreciating currency, against a backdrop of a persistent high unemployment rate, which is expected to increase pressure on people's livelihoods. The parallel exchange rate market experienced large depreciation since late December 2017 due to various factors including high growth in liquidity, limited correspondent banking relations with foreign banks and other external factors. The authorities' attempts to ease the downward pressure on the rial through unification of the official and parallel market exchange rates in early April 2018 along with restrictions on foreign exchange transactions was short-lived as the currency's value fell to less than a half against the dollar in unofficial exchanges in August 2018. This depreciation also led to a surge in prices, with inflation tripling in the last 4 month to 24.2 percent year on year—a four year high (and reaching 31 percent in September). Housing prices in Tehran increased by almost 37 percent in Spring 2018 compared to the same period a year earlier and rents were 27 percent higher. Unemployment remains high at 12.1 percent, and has worsened in recent years, especially amongst the youth and educated population as labor force participation continues to rise (40.3 percent in 2017/18).

The special focus chapter of this issue of the Iran Economic Monitor (IEM) shows high inflation was the key factor in the increase in poverty between 2012 to 2016 and given the recent surge in prices and rents, low-income households are expected to face mounting pressures. Historically, the social protection and cash transfer scheme were highly effective in Iran in combating poverty and decreasing inequality, and the governments' healthy fiscal buffers helps Iran to be well-placed to introduce counter-cyclical measures to boost economic activity and provide additional support to vulnerable households.

In the medium term, the economy is projected to once again experience an episode of stagflation as oil exports and inflation are expected to return to 2012/13 and 2013/14 levels. The reintroduction of oil sanctions by the US in November 2018 is assumed to reduce oil exports by 50 percent. In the absence of information on expected oil purchases from Iran after November 2018, the working level assumption is that of a return of oil export levels to those of 2012 and 2013 when sanctions were similarly introduced on Iran's oil and gas sectors. Other restrictions on trade and Foreign Direct Investment (FDI) along with the historically strong interdependence between oil and non-oil sectors is expected to lead to a reduction in the non-oil economy. Overall GDP is projected to contract by 1.6 percent in 2018/19 and again by 3.7 percent the following year which suggests Iran will be one of a few countries in the 2018–2020 period that are projected to experience a period of economic recession and rising prices—stagflation. The government balances are also expected to deteriorate as oil revenues, which account for more than 40 percent of central government revenues are cut. Continued downward pressure on the exchange rate and inflation back above 30 percent are also projected in the coming years which further lead to spiraling inflationary expectations and reducing consumer sentiment. Despite the depreciation and drop in imports, the reduction in oil exports are estimated to bring down the country's current account surplus to very low levels in the outlook.

Sizable risks and challenges face the prospects of the Iranian economy in the coming years. On the external side, there is uncertainty about the eventual scope of US sanctions, with consequent impact on the country's oil exports. Domestically, the government faces the economic and social challenges of completing adjustment to previous shocks, notably the problems within the banking sector, as well as coping with the emerging impact of sanctions reimposition. Weathering these challenges will be key in continuation of the course of domestic reforms that are directly linked to the macroeconomic challenges given the scarcity of foreign exchange and flight of activities to informal markets. The implementation of reforms is even more important in this context to build more resilience in the economy and use more efficiently all domestic resources at its disposal.

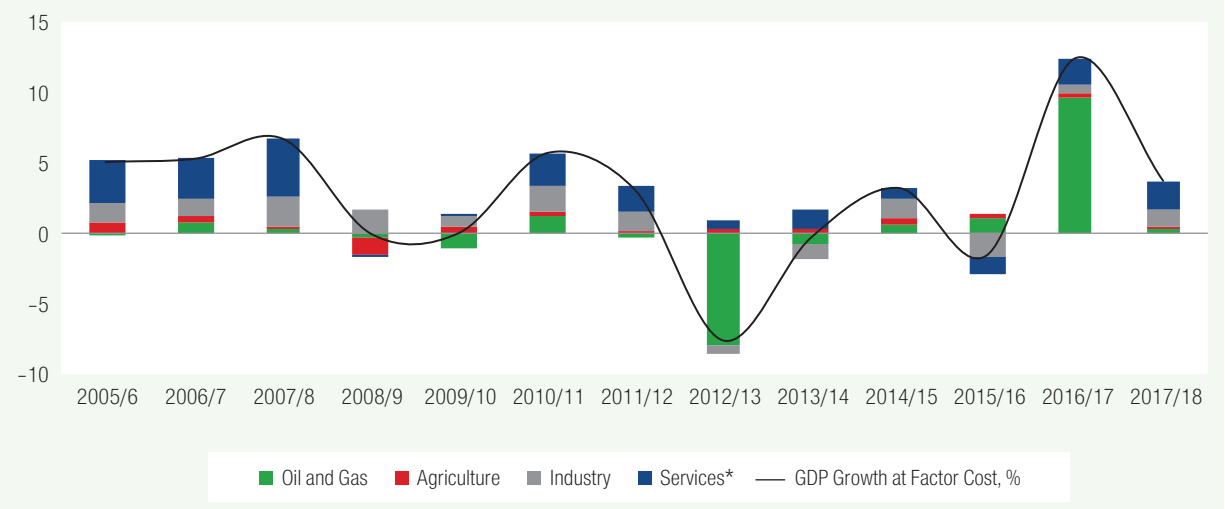
1

RECENT ECONOMIC AND POLICY DEVELOPMENTS

Output and Demand

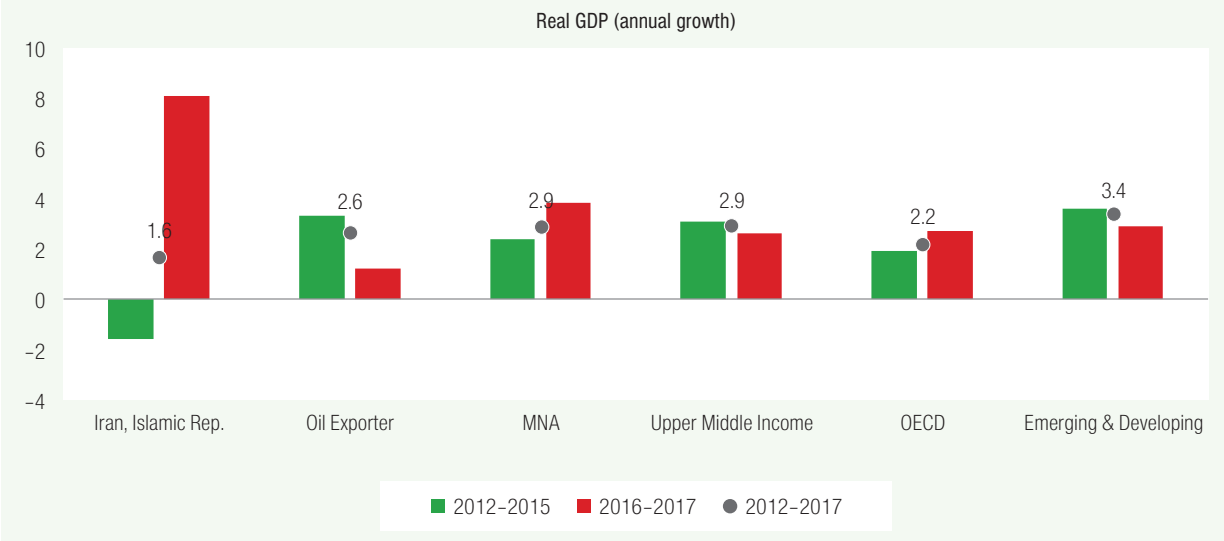
Economic growth slowed to 3.8 percent in 2017/18 as the one-off effect of increase in oil production dissipated. GDP growth declined from a recent record high of 13.4 percent in 2016/17 to 3.8 percent in the year ending March 2018. The growth performance remains above the previous 10-year annualized average growth rate of 2.1 percent. Despite the strong rebound in the previous two years (2016 and 2017), average growth in the past six years still remains below other comparator groups including the average growth rates of oil exporters, Middle-East and North Africa (MNA), upper middle-income countries and Organization for Economic Cooperation and Development (OECD) (Figure 2). Agriculture growth slowed down to 3.2 percent in 2017/18, services contributed the most to overall growth accounting for 2.1 percentage points (Figure 1), more than half of which was due to the transport, storage and real estate sector. Previously when sanctions were introduced, these service sectors grew strongly

FIGURE 1 • Real GDP Growth and Production Side Components (Percentage Points)



Source: Central Bank of Iran (CBI) data and World Bank staff calculations.
Note: *Services less imputed bank service charges

FIGURE 2 • Average GDP Growth vs Main Comparator Groups (%), 2012-2017



Source: Source: Find My Friends tool using International Monetary Fund (IMF) World Economic Outlook (WEO) data.

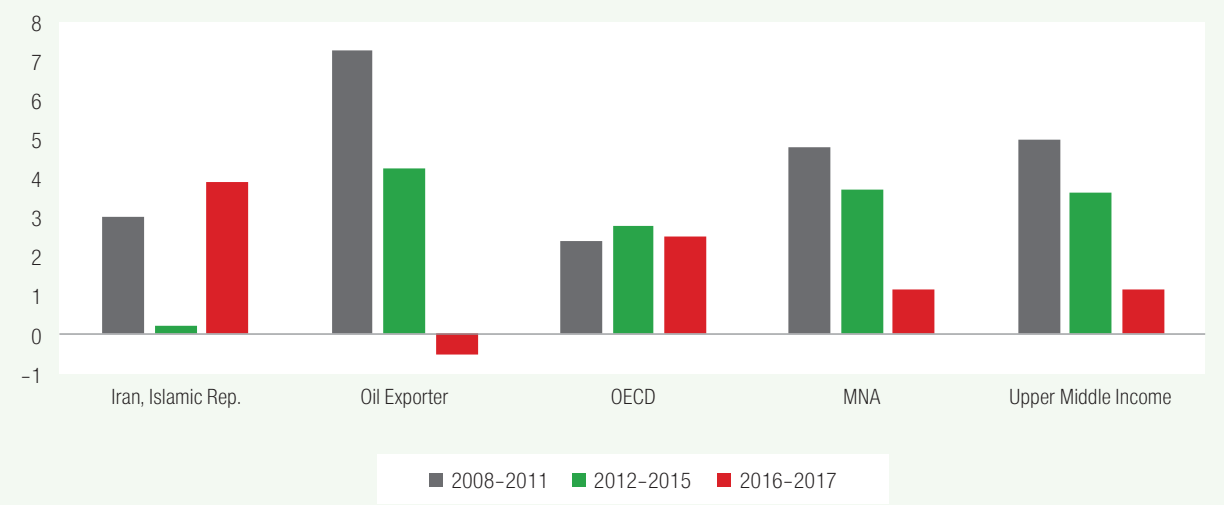
despite large decreases in overall GDP growth as there was a shift of liquid assets towards real estate and firms began to build up inventories. Real GDP growth in the March quarter of 2018 reveals an easing of growth at 2.7 percent year on year and June quarter 2018 growth slowing further to 1.8 percent year over year (0.7 percent non-oil GDP growth) down from 4.6 percent a year earlier (4.3 non-oil GDP growth). The downward trend is likely to continue throughout 2018 as the impact of exchange rates and inflation that occurred since March become reflected in economic activity.

More than ninety percent of overall growth in 2017/18 relied on non-oil production. Non-oil GDP growth in 2017/18 increased to 4.6 percent compared to 3.3 percent in the previous year. With oil production remaining constant, 3.5 percentage points out of 3.7 percent overall growth (at factor cost) was due to the non-oil sectors. The industries sector grew by 5.1 percent, substantially higher than the year before (2.2 percent) driven by the first growth in the construction sector since 2011/12 but still remains less than two third of the levels in 2011/12.

Historically, there have been strong spillovers of oil sector growth to the non-oil sectors. Iran's non-oil GDP growth rebounded strongly following the lifting of the sanctions on the economy (Figure 3). During the sanctions period (2012-15), non-oil GDP growth was close to zero percent over the 4 years and has since rebounded to average close to 4 percent per year in the past two years. Compared to Iran's comparators and in the latter period, its non-oil GDP growth is close to 4 percentage points higher than the average of other oil exporting economies and triple the MNA and upper middle-income countries' average. Figure 3 also shows the dependence of the non-oil sector on the oil sector for oil exporters as the lower prices in 2016 and 2017 have led to negative growth on average for oil exporters.

Crude oil production in 2017/18 and early 2018/19 remained relatively stable in line with the agreed OPEC+ production quota. Official government data indicate that oil production compared to the previous year has slightly declined to 3.8 million barrels per day (mbpd) in Q1 2018/19. Exports of oil and petroleum products however was slightly higher than the previous year average, though it slightly declined below the 2.3 mbpd mark in the second half of 2017/18. According to the authorities, oil production levels as recent as mid-August 2018 has largely been maintained at previous levels despite the prospective restrictions that are to be placed on countries importing oil from Iran.

FIGURE 3 • Non-Oil GDP Growth vs Main Comparator Groups (%), 2008-2017



Source: Find My Friends tool using IMF WEO data.

Published reports indicate that several oil importing countries have begun finding alternative suppliers and cutting imports in June and July 2018.[1]

Electricity production peaked in 2017/18 growing by more than 8 percent but spare capacity declined. Power cuts in the summer period in Tehran and other parts of the country illustrate a narrowing spare electricity generation capacity (Figure 4). The problem is more acute in peak consumption periods which along with an increase in exports of electricity highlights a greater need for additional investment in the electricity sector. On the demand side, policies to reduce energy intensity of the Iranian economy will also need to be considered. Iran's energy intensity has been steadily increasing in contrast to most countries in the world that have been reducing their energy intensity.

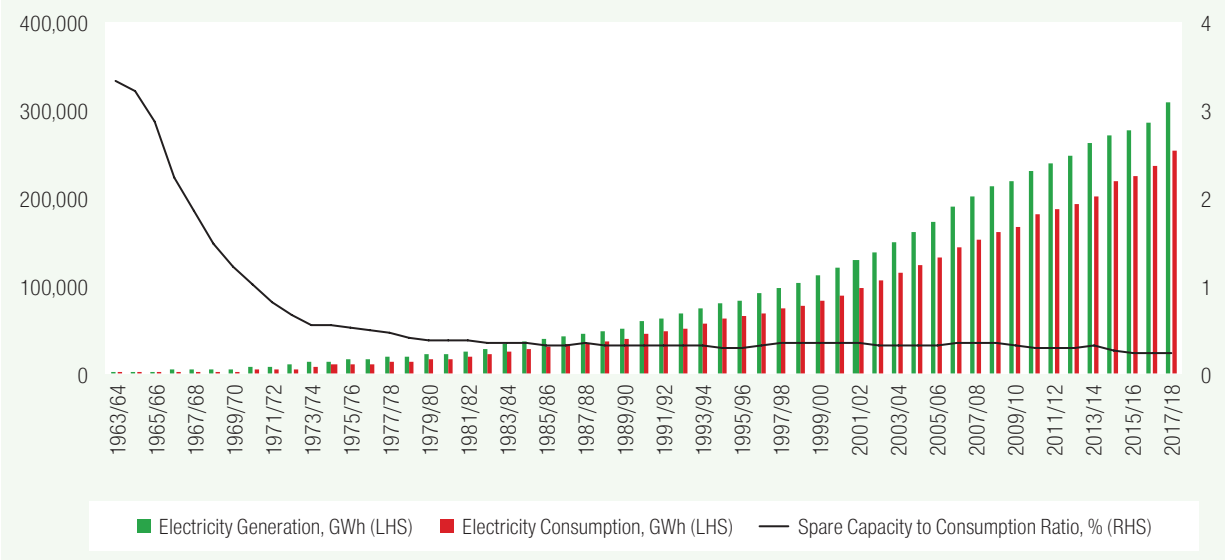
The composition of GDP on the expenditure side also reflects the levelling of oil exports following the large increase in the previous year. Net exports contracted 3 percent in 2017/18 following the 64 percent increase in the previous year as oil exports volumes remained at similar levels and a strong surge in imports. Total consumption growth eased to 2.8 percent and private consumption is now back above 2011/12 level for the first time. Real government expenditures continued to grow by just under 4 percent in 2017/18 marking the fifth consecutive year of expansion since the change of government in 2013/14. The sum of statistical discrepancy and inventories[2] similar to 2016/17, contributed almost 3 percentage points to overall GDP growth which may be an indication of stock building ahead of anticipated uncertainties in the near future.

After investment registered a positive albeit moderate growth in 2017/18, the business climate in 2018 has increasingly been

[1] See, "India cuts Iranian oil imports in June ahead of U.S. sanctions" https://in.reuters.com/article/india-iran-oil/india-cuts-iranian-oil-imports-in-june-ahead-of-u-s-sanctions-idINKBN1K10CV, "South Korea's Iran oil imports may fall to 3-year low in Sept, hopes for U.S. sanctions waiver—sources" https://www.reuters.com/article/us-southkorea-iran-oil/south-koreas-iran-oil-imports-may-fall-to-3-year-low-in-sept-hopes-for-u-s-sanctions-waiver-sources-idUSKBN1JS14B, "UPDATE 1-Japan's last imports of Iranian oil could be in Oct-industry body" https://uk.reuters.com/article/oil-iran-japan/update-1-japans-last-imports-of-iranian-oil-could-be-in-oct-industry-body-idUKL4N1UF2L5.

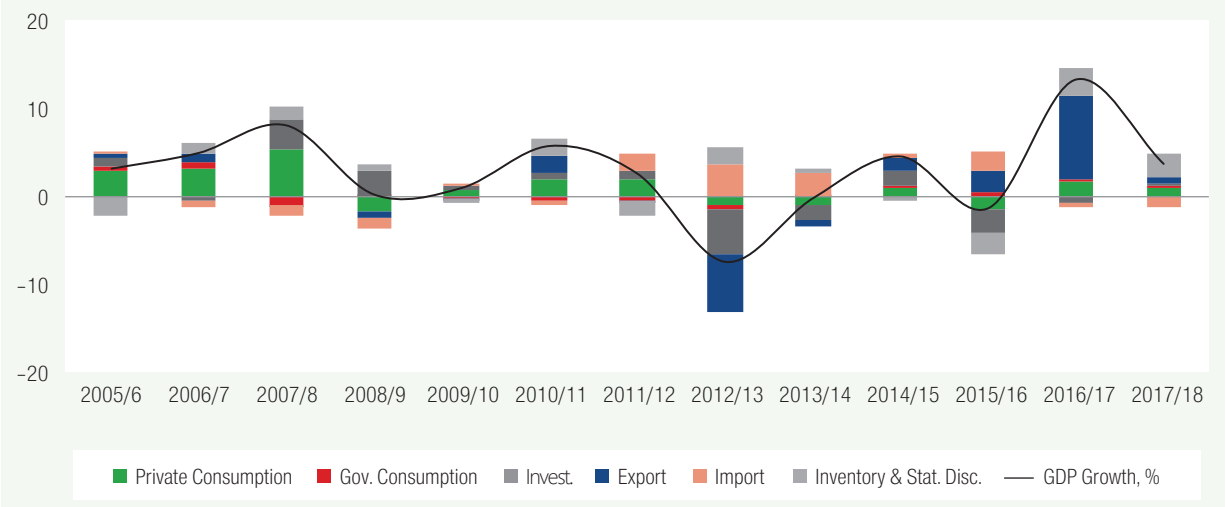
[2] For 2017/18, the CBI has only reported the inventory values together with statistical discrepancy.

FIGURE 4 • Iran's Electricity Generation and Consumption



Source: Based on data from the Ministry of Energy.
Note: Gigawatt Hours (GWh)

FIGURE 5 • Contribution of Expenditure Side Components to GDP Growth (Percentage Point)



Source: Based on CBI data.

influenced by external factors. Gross fixed capital formation grew by 1.4 percent in 2017/18. Foreign direct investment in 2018 is expected to have a downward trend compared to the previous two years after new US sanctions were introduced in early August 2018. Faced with a decision between continuing business with Iran or access to the US market, a number of investment projects by large European companies have been either suspended or canceled.[3]

[3] These include Total's operations in the South Pars Gas Field's US$4.8 billion consortium, PSA, Renault and Daimler's joint ventures in the country's auto sector and Britain's Quercus solar plant project.

TABLE 1 • Islamic Republic of Iran: Selected Macroeconomic Indicators (2015–2018)

	(% change unless stated otherwise)			
	2015/16	2016/17	2017/18	2018/19F
Real GDP, at factor cost (2011 = 100)	–1.6	12.5	3.7	–1.6
Agriculture	4.6	4.2	3.2	3.5
Industry	–1.4	24.7	3.1	–7
Services	–2.3	3.6	4.5	2.9
Real non-oil GDP, at factor cost (2011 = 100)	–3.1	3.3	4.6	n.a.
Real GDP, at market prices (2011 = 100)	–1.3	13.4	3.8	–1.5
Private Consumption	–3.5	3.8	2.5	–0.6
Government Consumption	4.8	3.7	3.8	–1.7
Gross Fixed Capital Investment	–12	–3.7	1.4	–1.5
Exports, Goods and Services	12.1	41.3	1.8	–11.9
Imports, Goods and Services	–20.2	6.1	13.4	–27.1
Prices				
Inflation (Consumer Price Index)	11.9	9.0	9.6	23.8
Current Account Balance (% of GDP)	2.3	3.9	3.5	0.6
Fiscal Balance (% of GDP)	–1.7	–2.2	–1.8	–4.7

Source: CBI data and World Bank staff calculations.

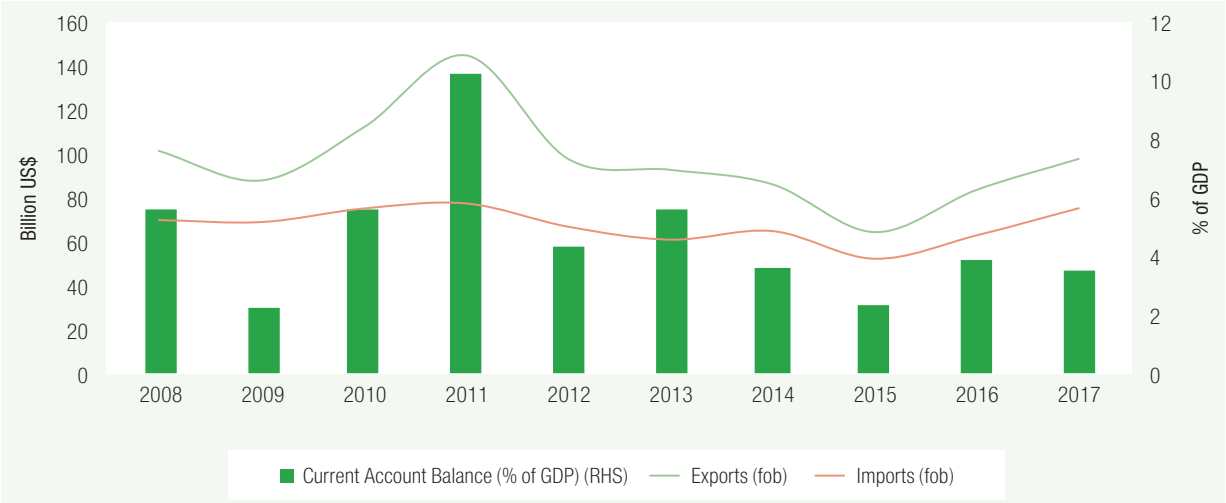
External Position

After an initial rebound in its current account surplus in 2016/17, following the slump in 2015/16, the surplus deteriorated again in 2017/18. The current account surplus fell from 3.9 percent of GDP in 2016/17 to 3.5 percent of GDP in 2017/18, as Iran's oil production initially slowed in 2018. Real export growth of goods and services was 1.8 percent in 2017/18, down from 41.3 percent, while real import growth was 13.4 percent in 2017/18. Iran's non-oil exports have risen in recent years from 6 percent of GDP in 2012/13 to 10 percent of GDP in 2017/18. In 2017/18, non-oil exports constituted 33 percent of Iran's total exports, compared to 38 percent in 2015. Imports are predominately non-oil and have been increasing in recent years. Iran's trade balance (as a share of GDP) remained historically low in 2017/18, due to strong imports growth (Figure 6). Growth in non-oil imports in 2017/18 slowed (from 20.3 percent to 17.1 percent, nominal), while non-oil export growth rose (from –6.6 percent to 11.5 percent, nominal). Roughly 85 percent of Iran's imports remain in capital and intermediate goods.

Non-oil trade data for the first four months of 2018/19 showed some improvements. In the first four months of the current fiscal year non-oil exports grew by 14.7 percent, year over year, most likely as a result of the depreciation of the exchange rate. A breakdown of exports shows that the majority of growth came from manufacturing, agricultural products and carpet exports. However, exports of gas condensates, accounting for around 12 percent of the non-oil export basket, declined by around 16 percent compared to the first four months of 2017/18. The other major component of non-oil exports, petrochemicals, only grew by 0.9 percent. Imports contracted by around 4 percent, year over year, which can mostly be attributed to the import ban placed.

The share of oil in total value of exports has fluctuated in the recent years. Oil exports constituted about 80 percent of exports between 2010/11 and

FIGURE 6 • Current Account

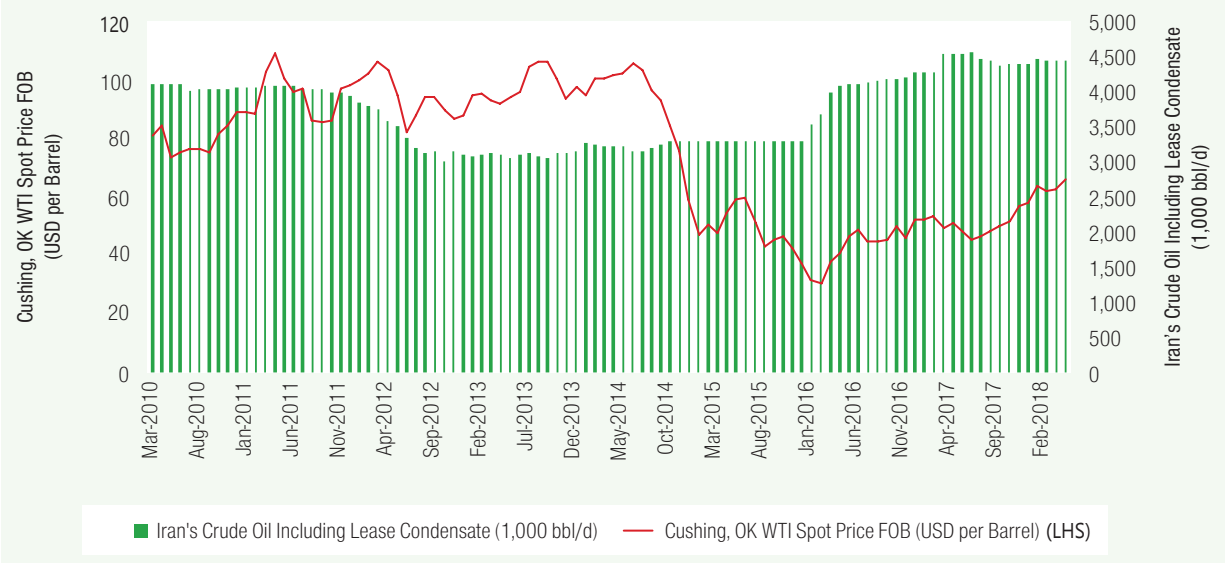


Source: CBI.

2012 and dropped to a low of 51 percent in 2015, before climbing back up when oil prices recovered and sanctions were removed to 67 percent in 2017/18.

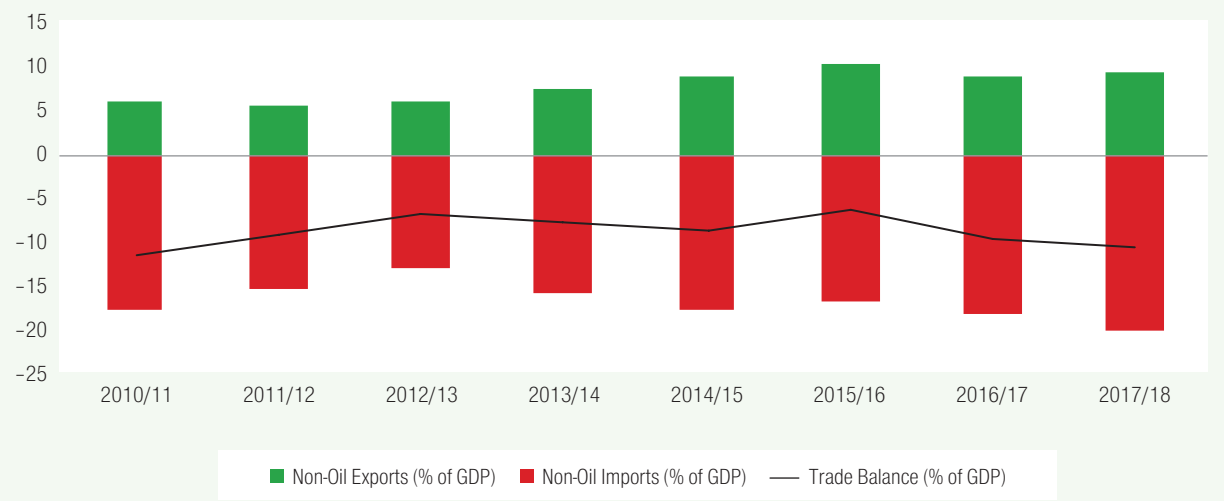
The majority of Iran's recent non-oil exports have consisted of agricultural and manufactured goods. Iran's main non-oil exports included agricultural and traditional goods (specifically fresh and dried fruits), plastic material and organic chemicals. In 2016/17, agricultural goods accounted for roughly 15 percent of non-oil good exports and industrial goods accounting for the 82 percent (Figure 9). Regarding services, Iran's exports have been largest in construction, transportation, and travel services. Exports of transportation (freight and passenger)

FIGURE 7 • Global Oil Prices & Iran's Oil Production Levels (2010–2018, Monthly)



Source: US Energy Information Agency.

FIGURE 8 • Non-Oil Trade Balance (% of GDP)

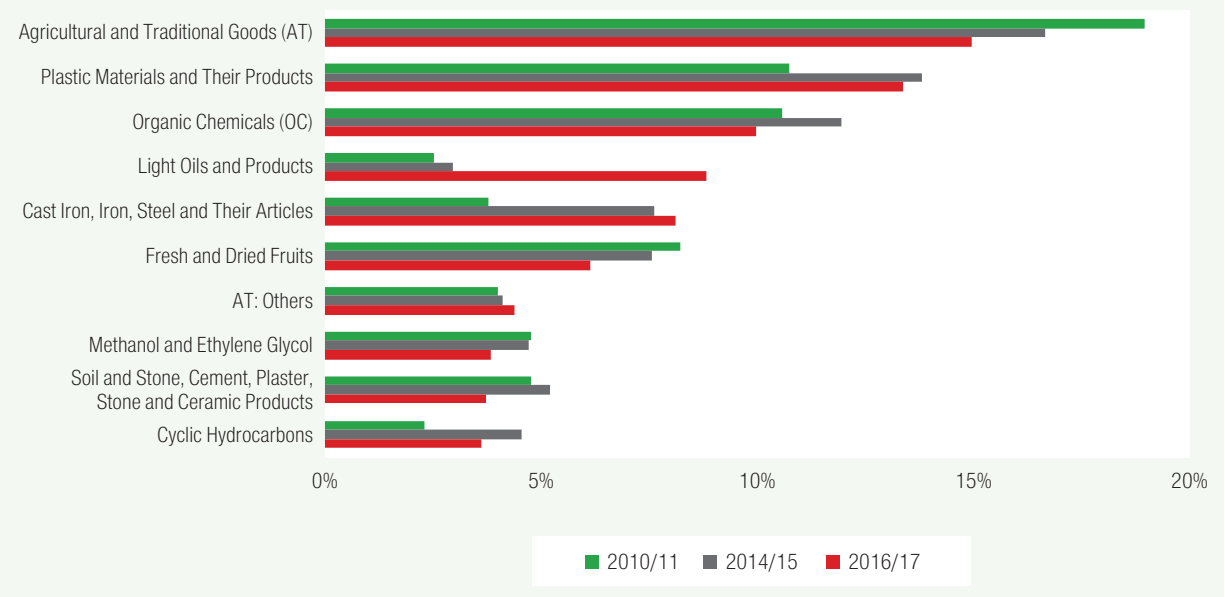


Source: CBI.

dipped in 2016/17 after having rebounded since 2012/13 a trend that was similar to that of exports of travel (business and personal). In 2016/17 travel and transportation services each constituted 7.7 percent of Iran's current account credits and industrial goods accounting for 30.8 percent.

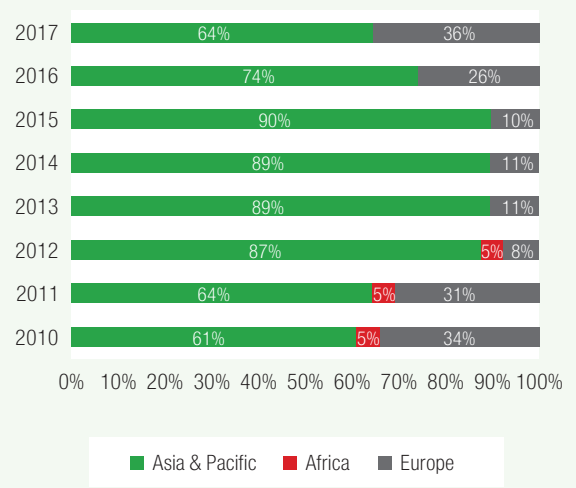
Europe was the main destination of Iran's recent increase in oil exports. Prior to the oil sanctions, in 2010 and 2011, about 60 percent of Iran's oil exports went to Asia and the Pacific, followed by 34 percent to Europe. After the imposition of oil sanctions in 2012, the European share declined

FIGURE 9 • Top Non-Oil Export Items (% of Total Non-Oil Exports)



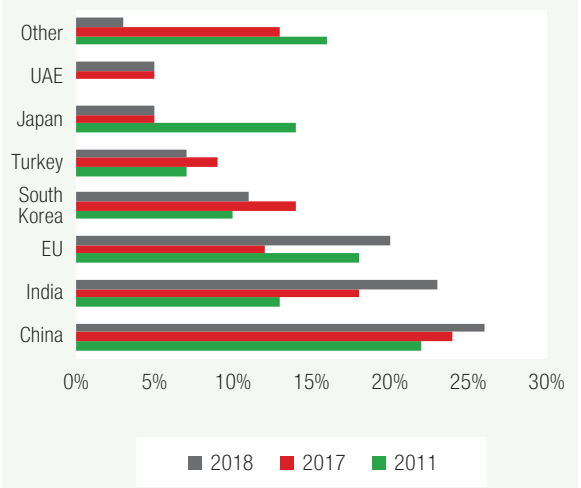
Source: Islamic Republic of Iran's Customs Administration (IRICA).

FIGURE 10 • Iran's Oil Exports by Region (% of Total Oil Exports)



Source: OPEC

FIGURE 11 • Iran's Oil Export Destinations (% of Total Oil Exports)



Source: Bloomberg and US Energy Information Agency.
Note: 2018 represents data for the first half of the year.

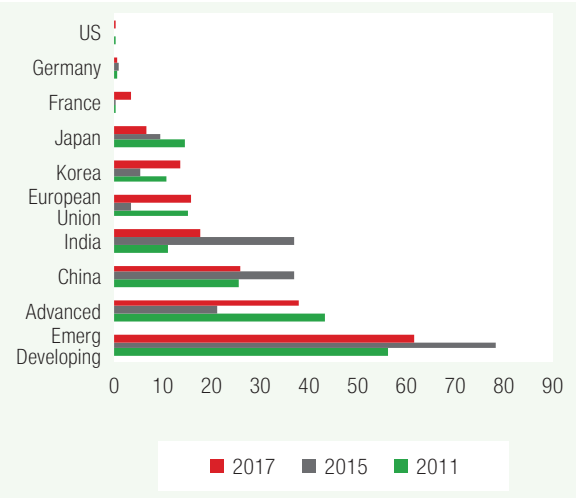
by 75 percent, to less than 10 percent of Iran's total oil exports. When oil sanctions were removed in 2016, Iran's oil exports to Europe rebounded from 10 percent in 2015 to 36 percent in 2017. Top European destinations for Iranian crude oil exports in 2017 included Turkey (9 percent), Italy (7 percent) and France (5 percent). In the first half of 2018, 26 percent of Iran's total oil exports were to China and 23 percent to India (Figure 11).

Iran's top export destinations continues to be emerging developing countries. Exports to China and India have remained the highest, with China's share of exports at 22 percent in 2011 and 26 percent 2017, while India's share of exports increased from 11 percent in 2011 to 18 percent in 2017 (Figure 12). Iran's trade balance with European Union (EU) was negative since 2012 with the deficit easing to €682 million in 2017/18. Looking forward, similar patterns are likely to emerge again with a fall of exports to Europe, while exports to China remaining stable.

Top importers of Iranian goods remain largely unchanged. Asia and Pacific (especially China) and the Middle East continue to top the list of main importers. Published reports indicate that Chinese authorities have expressed that their trade with Iran and notably oil imports will not be impacted by the new sanctions.

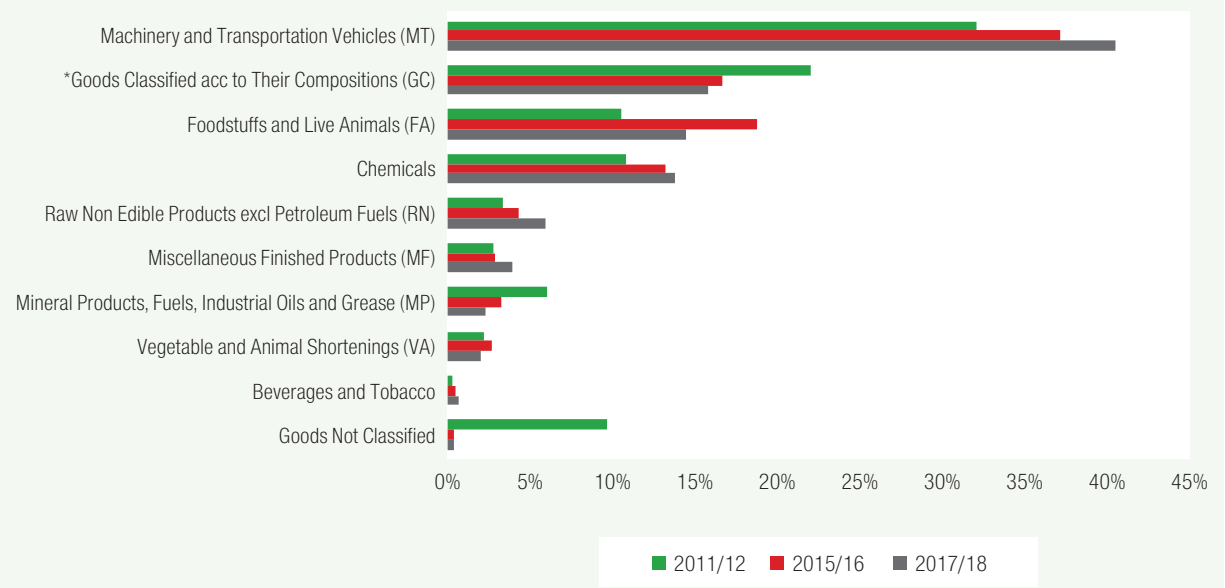
The share of capital and durable goods remains high in Iran's import basket. In 2016/17 over 40 percent of Iran's imports consisted of machinery and transportation vehicles (Figure 13), up from 32 percent six years ago. Meanwhile, iron and steel imports fell from 14

FIGURE 12 • Iran's Export Destinations of Goods (March Quarter, % of Total Global Exports)



Source: IMF DOTS.

FIGURE 13 • Iran's Main Imports (% of Total Global Imports)



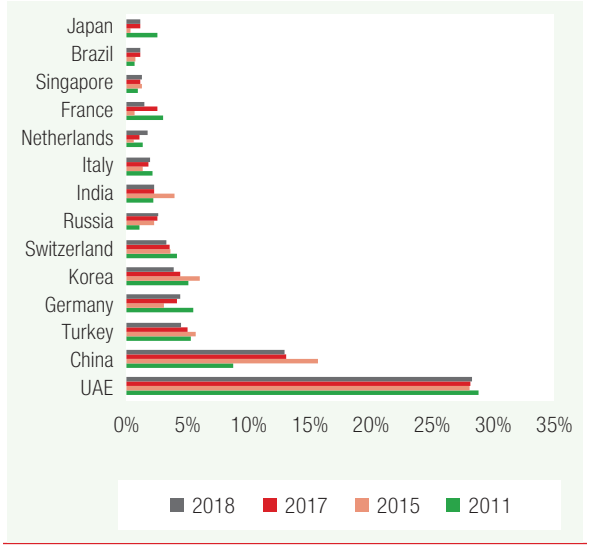
Source: IRICA.
Note: *The main subcomponents of the GC group include iron & steel, paper & cardboard, and yarn & other similar products.

percent of the total value of imports in 2010/11 to 5.7 percent in 2016/17. Import volume of iron and steel fell by 6.7 percent in 2016/17 compared to six years earlier.

Iran's major import partners have remained the same in the recent years. United Arab Emirates (UAE) remains the main passage of entry of goods to Iran accounting for 28.3 percent of the total value of imports in March quarter 2018 (Figure 14). A significant part of trade with UAE (especially Iran's imports) have other primary origins or destinations. The share of Chinese goods in Iran's imports remains high but has slightly declined from a high of 15.7 percent in 2015 March quarter to 13 percent in the same quarter of 2018. The share of Turkey and Korea in Iran's imports has also declined since March quarter 2015, while import share from Russia and some European countries including Germany, Italy and Netherlands has steadily increased.

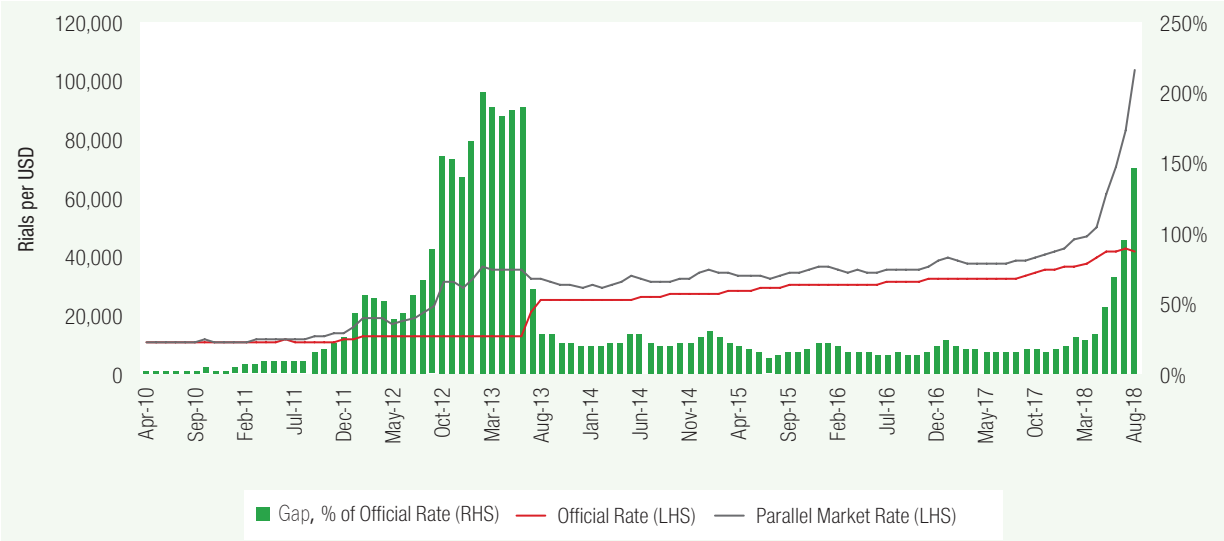
The ongoing exchange rate depreciation has pushed authorities to place direct bans on imports and exports of certain goods in early 2018/19. In order to manage the supply and demand of foreign exchange, the government announced the imposition of import ban on more than 1,400 goods. These goods generally include luxury or non-essential goods but also included products that domestic producers are presumed to be able to supply to its 80 million population including cars. On the export side, in

FIGURE 14 • Iran's Main Import Partners (March Quarter, % of Total Global Imports)



Source: IMF Directions of Trade Statistics (DOTS)

FIGURE 15 • Official and Market Exchange Rates



Source: CBI.

order to avoid a shortage of essential goods, the export of a number of goods were prohibited later in late-June 2018.[4] The list predominantly included various grains and seeds used for human and animal consumption. In August 2018, a list of six other items were added to the banned export list including powdered milk, various paper materials, tea and butter.[5]

Exchange Rate, Inflation, and Financial Assets

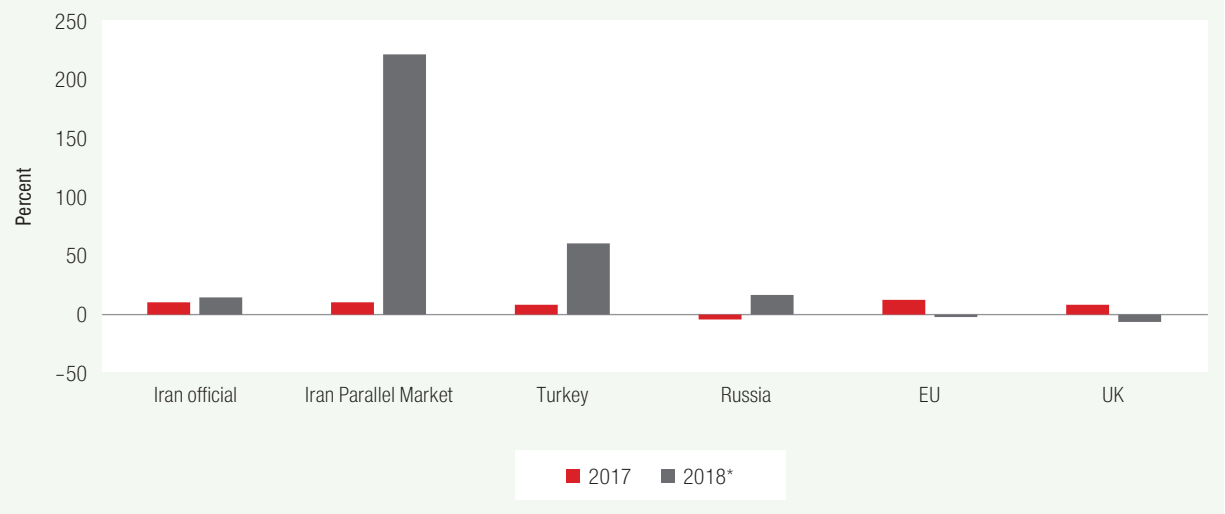
After months of turmoil in the exchange market, the government announced the unification o f the official and parallel exchange rates in April 2018. After four months of depreciation in the foreign exchange market on April 10, 2018 the government increased the official exchange rate from IRR37,830 to IRR42,000 per USD and announced that the exchange of foreign currency at any other rate will from then on be considered as smuggling. High demand for foreign currencies, due to high levels of liquidity (partly a result of earlier interest rate policy reforms) and heightened uncertainties due to external factors, caused authorities to devise rationing of supply including a four-tier grouping for imports of goods. The government also used some temporary measures such as allowing foreign currency deposits in the banking sector, a weeklong period of higher interest rate deposit offering at the banks and advance sales of gold coins to redirect liquidity away from the foreign exchange market and avoid large capital flight.

The April unification policy of the CBI failed to achieve its goals in calming the markets. Black market activity soared under the newly implemented fixed rate, as many businesses imported goods at dollar prices and resold them at the higher Iranian prices. As the US pulled out of the Iran deal in May 2018, the rial depreciated further (Figure 15), rising above 140,000 rials to the dollar in early September 2018. Iran's currency depreciation in 2018 has been one of the highest in the world (Figure 16). The extent of the depreciation is more than double that of Turkey which is undergoing its own exchange rate turmoil. The level of foreign debt in Iran is comparatively much lower and this limits the pressure of servicing debt in foreign currency; however, households and businesses who rely on importing foreign inputs and products (not on the fixed rate list) remain exposed to higher prices. With plans to reinstate US sanctions on oil,

[4] https://bit.ly/2wrQ9cB.

[5] https://bit.ly/2wnuJ17.

FIGURE 16 • Depreciation of the Rial and other Currencies vs the USD, %



Source: CBI and media reports for Iran and monetary authorities of relevant countries.
*Latest available data as of 29 August 2018.

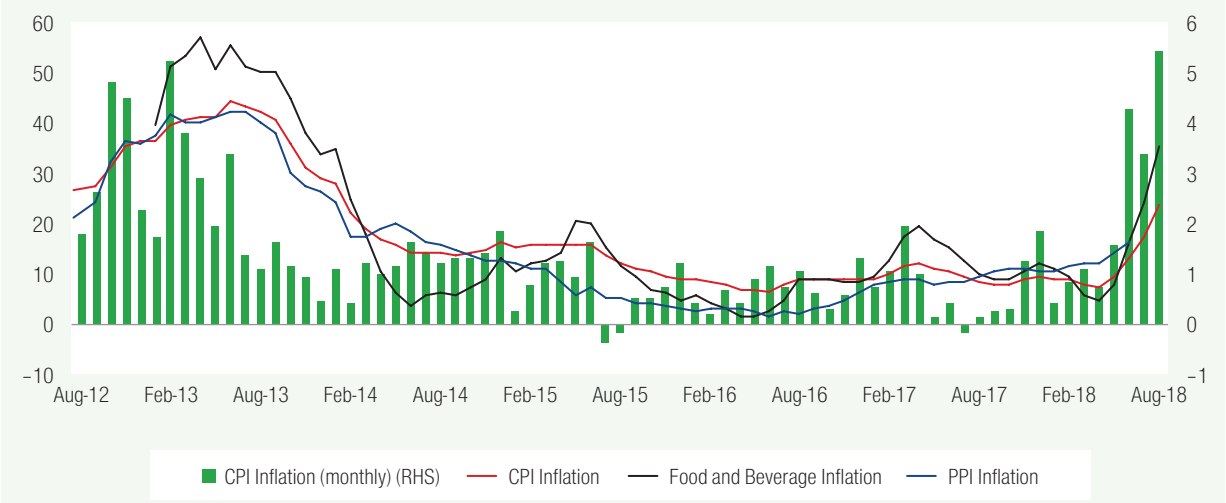
demand for the US Dollar has pushed the exchange rate premium above 200 percent in mid- September between the official rate and parallel rate.

Implementation issues have resulted in continued amendments to exchange rate policies in 2018. The resulting inefficiencies in the classification of goods and allocation mechanism of preferential exchange rates led the authorities to overhaul the earlier program and introduce a new three-tier classification of goods. The *first category* includes essential and basic goods, medicine and intermediate goods used to produce strategically important goods. Imports of tier-1 goods are through allocations of foreign currency at the official exchange rate and is supplied by the CBI. The *second category* of goods are those goods that are not domestically produced and can be used for various purposes. Imports of such goods are done through the CBI's secondary exchange rate market, NIMA. In the portal, exporters of petrochemicals, basic metals, pistachios, carpets and other non-oil items offer their foreign currency denominated sales to importers of second category imported goods based on the supply and demand reflected in the portal.

In a subsequent CBI directive, exporters of petrochemical products, steel and non-ferrous metals were required to provide their export revenues in the NIMA system within two months of receiving their export proceeds. The *third category* of goods include luxury and non-essential goods which cannot be imported under further notice. As part of the new policy package, the CBI allowed exchange shops to meet the demand for hard currency for 23 types of uses (e.g. for researchers going overseas, overseas tourist travel, medical expenses abroad, international insurance and transport costs, etc.) at the parallel rate with capped amounts. The foreign currency brokers were permitted to access the secondary market for funds as intermediaries between suppliers of hard currency and importers of goods in the secondary market and deal more extensively with hard currency by facilitating transfers of foreign currency into the country.

With heightened market uncertainty, driven by exchange rate depreciation and the reintroduction of US sanctions, inflation has returned to two-digit levels in Iran.

FIGURE 17 • Inflation (%, YOY)



Source: CBI.

In December 2017, CPI inflation peaked at 10 percent, before dropping to 7.9 percent by April 2018. Since April 2018, the US withdrawal from the Joint Comprehensive Plan of Action (JCPOA) and domestic speculation on the rial led to a sharp depreciation of the unofficial exchange rate, which has increased import costs and fed inflationary expectations of consumers. Within 4 months, CPI inflation had more than tripled, reaching 24.2 percent in August 2018, the highest Iran has experienced since 2013 and the largest monthly increase in prices (5.5 percent month on month) in at least 200 months (16 years)—since inflation data began being published accessibly in January 2002.

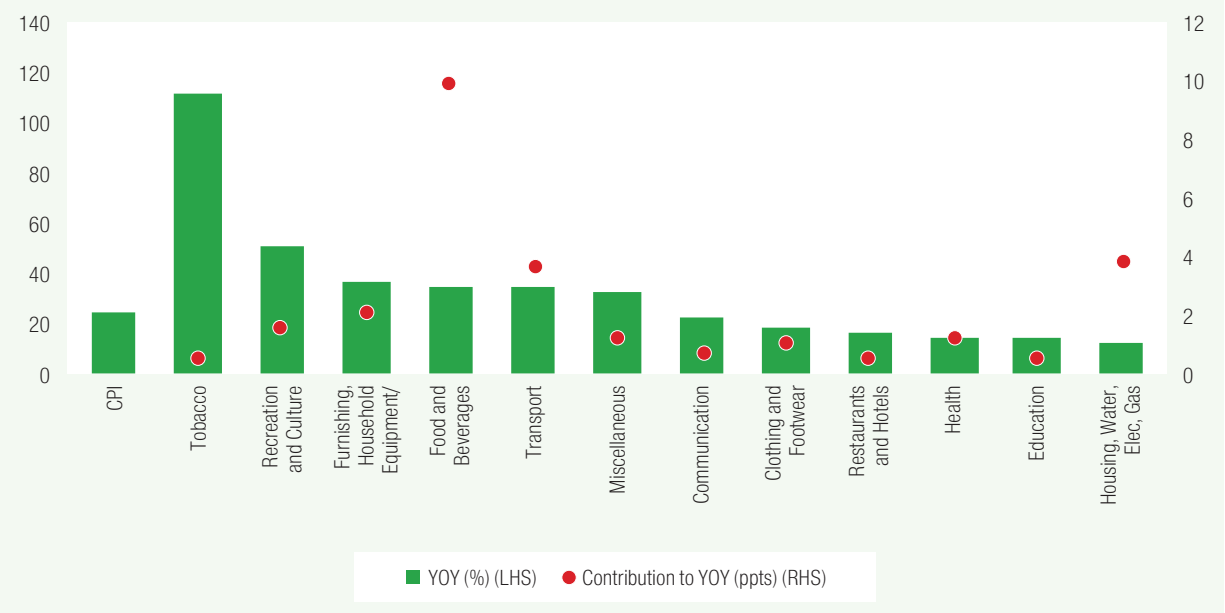
Food and beverages, housing, and transport were among the top contributors driving CPI inflation upwards (Figure 18). Tobacco prices have increased following increased excise taxes imposed in recent months but given their small share in the CPI basket (0.37 percent) have only contributed 0.4 percentage points to CPI. Food price inflation reached the highest level in 4 years at 36 percent year on year in August 2018 with broad increases across the components. The largest increases were by fruits and nuts which increased by 85 percent and contributed to more than half the increase of food inflation. Food inflation is three times the rates it was 12 months ago and will have a disproportionate impact on low income households who spend more of their household income on food. The bottom two deciles spend on average 40 percent of their income on food while the top two deciles spend half of that with 20 percent of their income going to food (Figure 19). Housing prices in Tehran increased by almost 37 percent in Spring 2018 compared to the same period a year earlier and rents were 27 percent higher.[6]

Producer price inflation (PPI) also continues to rise. PPI year on year increased from 8.7 percent in June 2017 to 16.9 percent by June 2018. In fact, PPI has been steadily rising since 2017, from 10.7 percent in December 2017 to 16.9 percent by June 2018, with the greatest pick-up occurring between May and June of 2018. Manufacturing continues to be the greatest contributor to PPI in June 2018, with the greatest year-on-year percentage changes in basic metals (48.1 percent), followed by tobacco (43.8 percent), and chemical products (41.3 percent). In services, transport had the largest price increase (15.8 percent), with air transport prices growing by 35.8 percent.

The Tehran Stock Exchange (TSE) overall index has been rising since May 2018. The index

[6] https://bit.ly/2w7t5As.

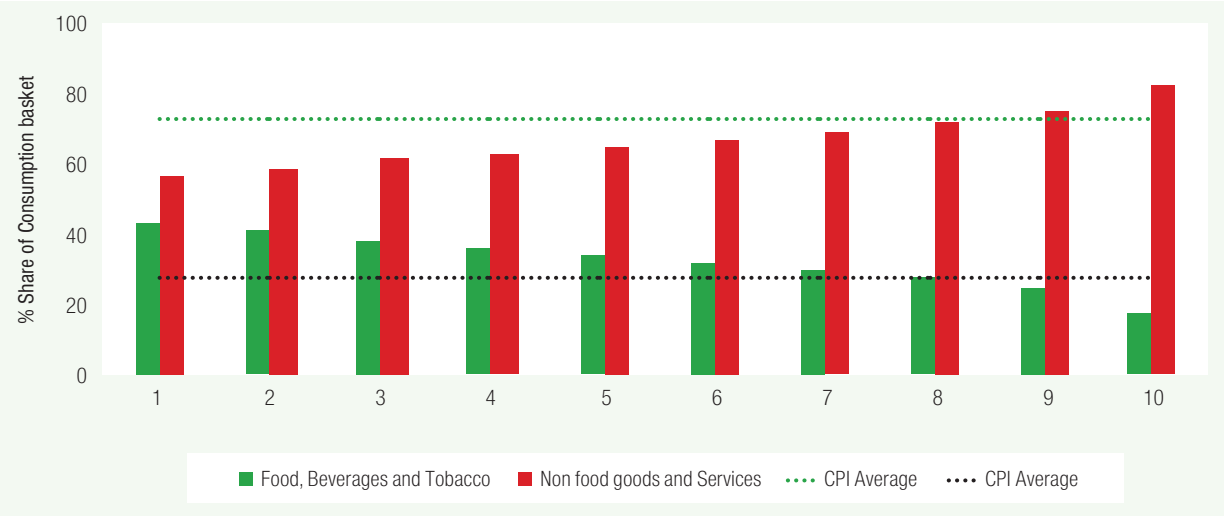
FIGURE 18 • CPI Inflation Subcomponents in July 2018 (%, YOY)



Source: CBI.

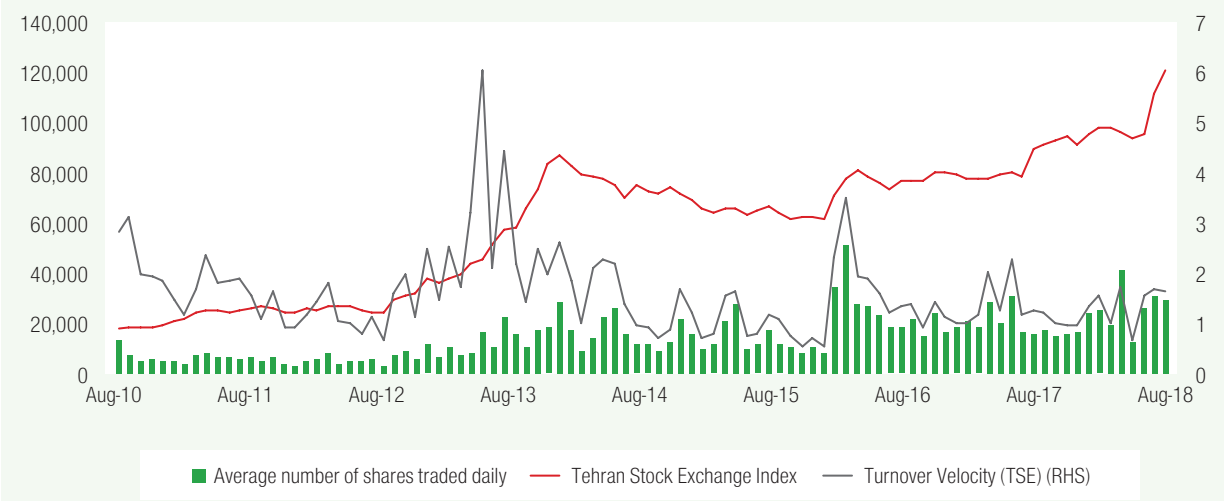
peaked at 121,174 points in July 2018 (Figure 20). This uptick is likely a reflection of investors shifting savings to assets that are less affected by the devaluation of the rial. The TSE index (TEDPIX) initially remained stable between January and May of 2018, before increasing again from June onwards. The price earning ratio remains between 6 and 7, where it has been since December of 2016. The turnover velocity rate jumped in April 2018, from 1 to 2 points with increased uncertainty in the economy

FIGURE 19 • CPI Consumption Weights by Decile (%)



Source: Statistical Center of Iran (SCI).

FIGURE 20 • Tehran Stock Exchange



Source: CBI.

and the large share of petrochemical and other exporters benefiting from higher exchange rates.

The Iranian banking sector continues to remain fragile. The authorities have make gradual progress in implementing a number banking sector reforms as part of a reform "road map" that aim to strengthen the banking sector resilience and improve the legal and regulatory regime including making the CBI the sole authority to license and regulate financial institutions, the closure and or merger of unlicensed financial institutions with banks, the partial settlement of government arrears through settlement bonds and the drafting of the new CBI Law and amendments to the Banking Law that are currently undergoing the legislative approval process. The withdrawal of the US from JCPOA and the threat of sanctions and potential loss of recently acquired access to the global financial system has exacerbated the already weak performance of the financial sector. Consequently, the average Capital Adequacy Ratio (CAR) had fallen to 4.9 percent by end-June 2017 from 5.2 percent a year earlier and the nonperforming loans (NPLs) ratio worsened from 9.5 a year ago to 10.3 percent in March quarter 2018.[7] The authorities need to continue to undertake several structural reforms including a comprehensive solvency assessment through an independent Asset Quality Review (AQR) of each public and quasi-public bank leading to restructuring, recapitalization and or resolution of these banks, the accelerated passage of the CBI Law and the amendments to the Banking Law and the completion of Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT) reform.

Credit growth in 2017/18 more than halved compared to a year earlier. Total credit issued in the banking system was IRR6,139.1 trillion (US$179.4 billion),[8] equivalent to 40.1 percent of GDP in 2017/18. With a slowdown in GDP growth, the credit growth rate fell from 31.4 percent in 2016/17 to 12 percent in 2017/18 which was the lowest rate since 2013/14. Box 1 provides more detail on the recent credit expansion trend and sectoral allocation through the banking system.

Public Finances

The central government deficit slightly improved in 2017/18 to 1.8 percent as a share of GDP as revenue increased and expenditures remained

[7] IMF Article IV, March 2018 and CBI.

[8] All dollar equivalent values are converted using the official exchange rate.

BOX 1 • Recent Credit Growth in Iran's Banking System

Iran's challenges accessing foreign funds places greater reliance for domestic firms on the national banking system to supply financial resources and instruments. Examining the decomposition of the banking sector loans by sector, purpose and type of bank provides an important insight into economic activity and the role of credit.

The largest share of new credit injected into the economy was issued to the trade and services sector in 2017/18. Trade and services' share of total credit growth in 2017/18 (53.3 percent) was higher than its stock of new credit in the economy (41.2 percent). The services sector in the same year contributed 2.1 percent out of the 3.7 percent growth in real GDP which is likely to highlight the link between the financial and real sector of the economy. In contrast, the non-services sectors received lower shares of additional funds relative to their respective shares of total banking system credit. For example, the manufacturing sector, accounting for 28.4 percent of 2017/18 total banking system credit, only received 20.3 percent of credit growth in 2017/18.

In 2017/18, around 76 percent of total banking system credit was issued by the private banks providing IRR4,666.1 trillion (US$136.4 billion) to the real sector. Private banks provided more credit than their state-owned counterparts in all sectors of the economy except agriculture. State owned banks, consisting of specialized and commercial banks, covered 77.8 percent of credit supply in the agricultural sector in 2017/18.

TABLE B1.a • Banking System Credit by Sector, 2012/13-2017/18

(trillion rials)	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Agriculture	176.9	222.3	255.8	352.2	466.8	492.9
Manufacturing and mining	619.3	706.0	1064.9	1219.5	1609.2	1742.2
Construction and housing	264.1	287.1	404.5	431.1	501.2	517.4
Trade, services and miscellaneous	895.5	1146.8	1688.9	2170.4	2906.5	3386.6
Trade	228.3	305.4	433.1	570.4	724.3	851.7
Services	665.3	838.2	1248.0	1598.3	2178.8	2528.3
Miscellaneous	1.9	3.2	7.8	1.6	3.4	6.6
Total	1955.9	2362.2	3414.2	4173.2	5483.7	6139.1

Source: CBI.

TABLE B1.b • Banking System Credit by Sector and Type of Bank, 2017/18

(trillion rials)	Commercial Banks	Specialized Banks	State-owned Banks	Privatized Banks	Private Banks and Credit Institutions	Private Banks and Credit Institutions	Banking System	Shares (%)
Agriculture	73.5	310.3	383.7	87.3	21.9	109.2	492.9	8.0
Manufacturing and mining	193.7	73.7	267.4	745.5	729.2	1474.8	1742.2	28.4
Construction and housing	29.2	199.8	229.0	69.7	218.7	288.5	517.4	8.4
Trade, services and miscellaneous	547.5	45.5	593.0	1110.4	1683.2	2793.6	3386.6	55.2
Trade	77.0	18.3	95.2	265.0	491.5	756.5	851.7	13.9
Services	470.3	27.2	497.5	843.7	1187.1	2030.8	2528.3	41.2
Miscellaneous	0.2	0.0	0.2	1.7	4.7	6.4	6.6	0.1
Total	843.8	629.2	1473.1	2013	2653.1	4666.1	6139.1	
Shares (%)	13.7	10.3	24.0	32.8	43.2	76.0		100.0

Source: CBI.

(continued on next page)

BOX 1 • **Recent Credit Growth in Iran's Banking System** *(continued)*

Working capital was the biggest purpose for which funds were allocated (61.7 percent) by the banking sector in the economy in 2017/18. This is also true in the pattern of allocation at the sectoral level. Almost one tenth of all credit was allocated to establishing new firms across the economy. Out of total credits issued to the trade and services sector, establishment loans was the fourth category that firms used, while establishing new business in agriculture and manufacturing sectors were the second largest reason for borrowings.

TABLE B1.c • Banking System Credit by Sector and Purpose, 2017/18

(trillion rials)	Establishment	Financing working capital	Repairs and maintenance	Development	Purchase of personal goods	Housing purchase	Others
Agriculture	81.1	338.9	1.0	29.8	14.0	1.5	26.7
Manufacturing and mining	128.9	1456.8	10.5	69.2	21.5	5.8	49.6
Construction and housing	86.6	102.8	63.8	16.9	11.8	218.2	17.4
Trade, services and miscellaneous	312.9	1890.3	115.2	185.1	380.2	64.8	437.9
Trade	51.6	584.7	4.5	27.0	51.3	31.6	100.9
Services	260.0	1302.2	110.7	157.6	328.6	33.1	336
Miscellaneous	1.3	3.4	0.0	0.5	0.3	0.1	1.0
Total	609.5	3788.8	190.5	301.0	427.5	290.3	531.6

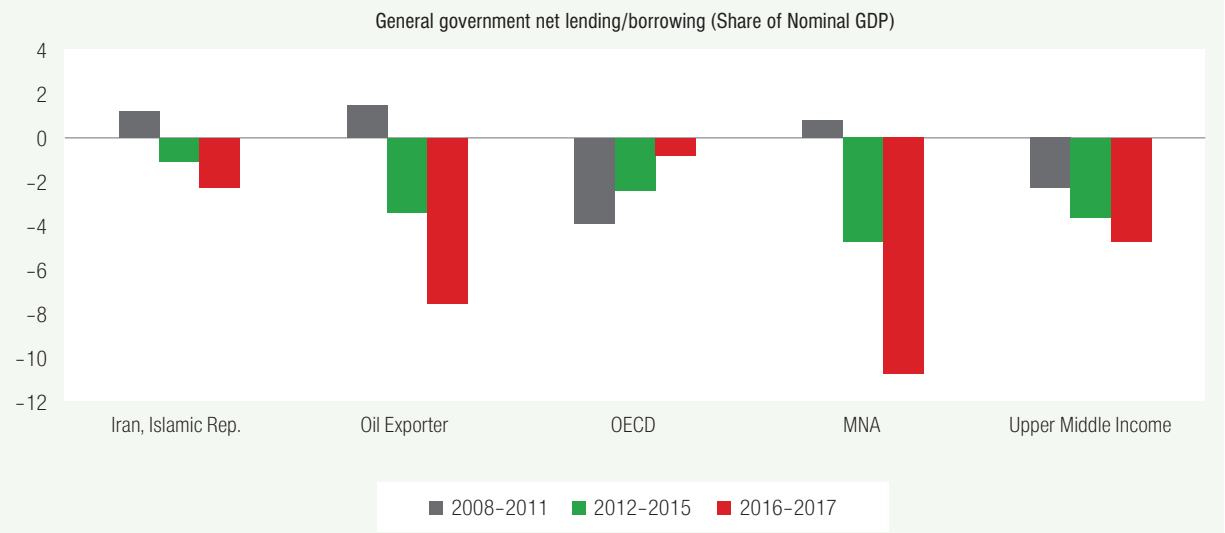
Source: CBI.

flat as a share of GDP. Government revenues grew at a slightly slower pace of 17.9 percent (in nominal terms) compared to 2016/17 but due to a slowdown in GDP growth, the revenue to GDP ratio witnessed a minor increase to 17 percent of GDP. The composition of growth in revenues changed as oil revenues grew by more than 24 percent which accounted for just under half of the overall increase in revenues. Government expenditures growth however slowed from 24 percent a year earlier to 17 percent in 2017/18. General government balances remain relatively modest compared to Iran's comparators and this has been the case over the past decade which is particularly exceptional given the combination of sanctions and lower oil prices in recent years (Figure 21).

Government revenues have increased as a share of GDP but they remain amongst the lowest rates in the world. General government revenues averaged around 17 percent of GDP in 2016–2017 period up from 14 percent in 2012–2015, but still below the rate it had previously been when it was above 20 percent in 2008–2011 (Figure 22). Oil prices and productions levels help explain the variation between years, but the overall level across all time periods is significantly lower than other comparators. For example, compared to other oil exporting countries, Iran's government revenue share of GDP is only two-thirds, and around half that of MNA and upper middle-income economies (see Box 2 for further discussion of Iran's revenues by components). Further efforts at expanding the tax base and targeting will be crucial to help increase the resource envelope and diversify away from oil revenues.

Lower than expected realized government revenues came at the expense of lower capital expenditures in 2017/18 as had occurred last year. Tax revenues almost met the approved amount in the budget, but total revenues fell short of the value envisioned by around 11.3 percent as oil revenues were 19 percent lower than approved in the budget but accounted for around 6 percent of GDP. Subsequently, expenditures fell short of

FIGURE 21 • General Government Balance (% of Nominal GDP), 2008-2017

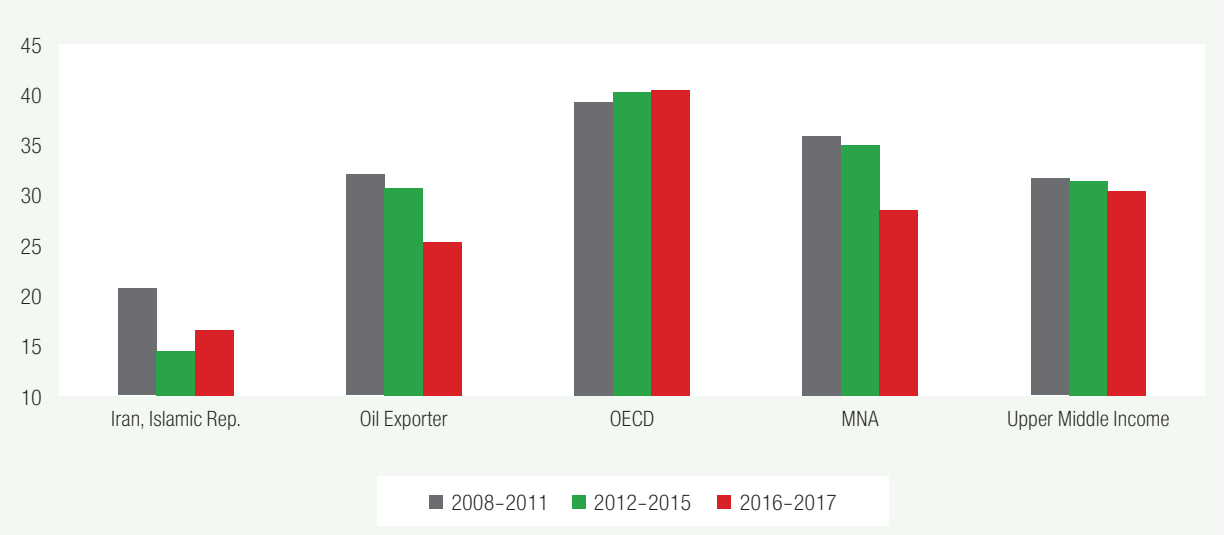


Source: Find My Friends tool using IMF WEO data.

the target by 11.8 percent (Table 2). The shortfall in expenditure however disproportionately affects the capital expenditures with non-financial assets (NFA) realization almost 40 percent less than the budgeted amount. The share of capital expenditures in total expenditures declined to 15.3 percent (equivalent to 2.9 percent of GDP). This level of capital expenditures is low compared to the country's historical values which were as high as 27 percent (or 5.5 percent of GDP) in 2008/9.

Government debt issuances to finance their gross borrowing requirements remained high in 2017/18 but lower than the record level in the previous year. The government's disposal

FIGURE 22 • General Government Revenues (% of Nominal GDP), 2008-2017



Source: Find My Friends tool using IMF WEO data.

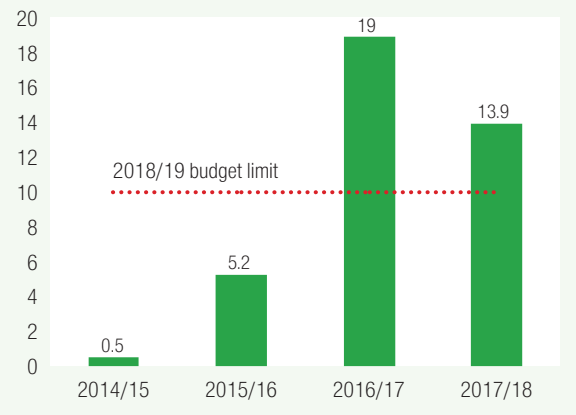
TABLE 2 • Central Government Budget in 2017/18

(trillion rials)	Realized	Approved	Gap
Current revenues	1,675.6	1,741	-3.8%
Tax revenues	1,158.4	1,164.6	-0.5%
Other	517.2	576.4	-10.3%
Disposal of NFA	922.9	1,189.5	-22.4%
Oil revenues (NFA)	919.3	1,139	-19.3%
Other	3.6	50.5	-92.9%
Total revenues	2,598.5	2,930.5	-11.3%
Current expenditures	2,429.4	2,538.2	-4.3%
Acquisition of NFA	439.2	713.7	-38.5%
Total expenditures	2,868.6	3,251.9	-11.8%
Operating balance	-753.8	-797.2	-5.4%

Source: CBI.

of financial assets (bond issuances, receipts from privatizations and borrowing from the Treasury revolving fund and National Development Fund of Iran) reduced by 4.2 percent after concerns of an over-reliance on the debt market to finance gross borrowings. In the 2018/19 budget law the parliament has restricted government debt issuance to be under 10 percent of general government revenues. New debt issuance as a share of revenue jumped to 19 percent

FIGURE 23 • Debt Issuance as a Share of Government Revenues (Including Disposal of Financial Assets) (%)



Source: CBI.

in 2016/17 and was almost 14 percent in 2017/18 (Figure 23). The authorities have also indicated plans to move towards a more comprehensive approach in its bond issuance and overall debt management strategy such as following a pre-announced timetable of future issuances. The development of the debt market will occur under the supervision of a committee consisting of the CBI governor, Minister of Economic Affairs and the head of the Plan and Budgeting Organization. In 2017/18, similar to the previous two years, the central government had no foreign borrowing.

Higher frequency data for the first three months of 2018/19 show that crude oil revenues have increased by more than 72 percent compared to the same period in 2017/18. This increase is largely a result of an increase in oil prices compared to the previous year which was driven by an increase in oil export volumes. The breakdown of oil revenues also shows that this growth was mainly due to an increase in sales of crude oil (101 percent) and domestic sales of gas condensates while revenue from exports of petroleum products and gas condensates shrank (42.5 percent). Disposal of financial assets in the first quarter of 2018/19 (out of which around 74 percent in the previous year was issuance of Islamic instruments) has increased by more than 57 percent year over year, indicating a continued debt financing mechanism relying on the domestic financial market.

The result of the latest assessment of general government debt puts gross public debt at 37 percent of GDP for the end of 2017/18. The government's comprehensive assessment of assets and general government debt is still ongoing with a leading role by the Ministry of Economic Affairs' Debt Management Center and collaboration with the CBI and other public and governmental bodies. The corresponding value of the debt ratio for 2016/17 was also revised to 45 percent of GDP. The authorities have also continued to use zero interest-bearing settlement bonds to swap government's arrears to contractors with those entities' outstanding obligations such as tax payments that are due. In late July a second type of settlement bond was introduced through which government arrears to contractors would be settled and transformed as government debt to the Central Bank. The process involves contractors that are given

these bonds by the government to use them to settle their debt to banks. The banks in turn would use the bonds to settle their own accounts with the Central Bank. The aim of this new tool is to support private activity by settling government arears to the firms and improve the balance sheets of banks. At the time government debt to CBI had been reported to have reduced from IRR100 trillion to IRR85 trillion.[9]

BOX 2 • Benchmarking Iran's Government Revenue Collection to Other Comparators

Iran collects less general government revenues as a share of GDP relative to its income level, region and the other oil exporting countries (Figure 24). The average oil exporting country collected 50 percent more revenues as a share of GDP than Iran in 2017 while upper middle-income countries (UMIC) collected almost twice as much. Broadening the tax base and improvements in collection are important elements for Iran to be able to deliver higher quality and wider reaching government services. This becomes especially crucial during the upcoming projected period of lower economic activity and the expected decline in oil revenues, the largest single source of revenues for the government. Importantly, Iran has undertaken several reforms in recent years that has increased non-oil revenues across several tax components but significant opportunities remain. This box compares in greater detail how Iran's revenue collection compares to its comparators by sub-component.

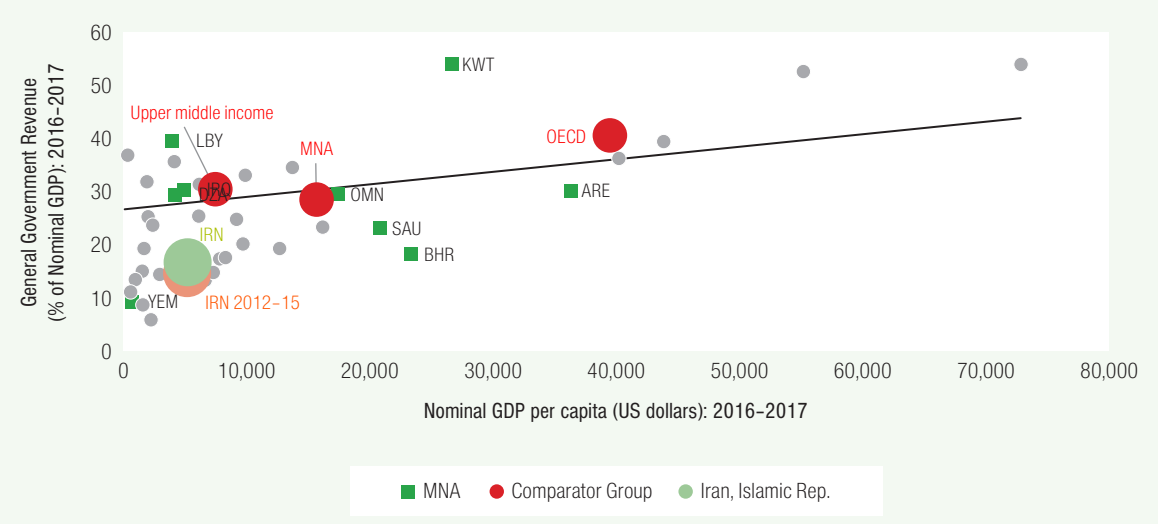
Direct taxes

Since 2012, Iran's taxes on corporate income, profits, and capital gains have been lower than MNA and oil exporter averages (Figure 28). Iran's direct taxes (as a share of GDP) were 3.5 percent in 2017/18, slightly down from 3.8 percent in the two previous years, though well up from the 2.8 percent recorded in 2013/14. The GDP share of corporate taxes were 2.3 percent in 2017/18, income tax was 1 percent, while property tax remained at 0.2 percent, unchanged since 2007/08 despite large increases in property prices in Tehran over the same period. Iran has introduced a higher corporate tax rate of 25 percent but also granted a variety of tax incentives for foreign companies, including tax holidays for firms located in special zones or select sectors, such as agricultural, hand woven carpets, among others. Taxes on individuals' income, profits and capital gains taxes, is relatively considerably lower than other oil exporters and UMIC countries who on average collect 4 times more (Figure 27). Individual taxes can be expected to become an increased source of revenue in the future, in accordance with Iran's new progressive income tax model.

Indirect taxes

Iran's indirect taxes have doubled in recent years following increases in the rate of VAT. The VAT rate increased from 5 percent in 2011/12 to 9 percent in 2017/18 leading sales and consumption tax collection to go from 0.8 percent of GDP in 2010 to 2.7 percent in 2017. Import taxes have remained at around 1.5 percent of GDP outside of the sanctions period when import levels fall.

FIGURE 24 • General Government Revenue (% of Nominal GDP): 2016-2017 vs. Nominal GDP Per Capita (USD): 2016-2017 in Oil Exporter Countries



Source: Find My Friends tool using the IMF World Economic Outlook.

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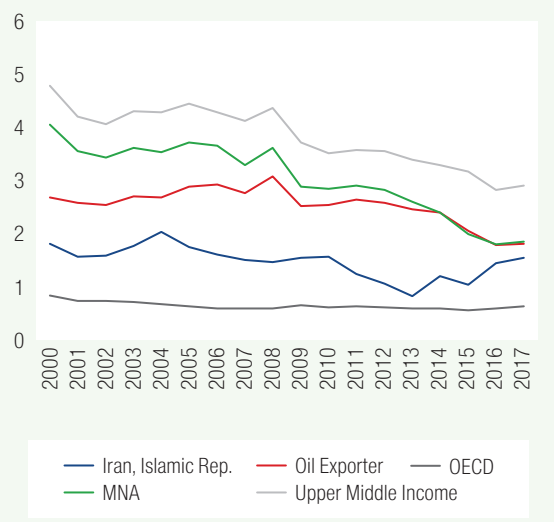
BOX 2 • Benchmarking Iran's Government Revenue Collection to Other Comparators *(continued)*

TABLE B2.A • Composition of Government Tax Revenues

(% of GDP)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Revenues	14.6%	15.3%	15.2%	15.8%	17.4%	13.6%	13.4%	14.0%	15.7%	16.8%	17.0%
Current Revenues	9.2%	9.8%	11.2%	7.1%	8.5%	7.7%	7.2%	8.5%	9.8%	11.1%	10.9%
Tax Revenues	5.9%	6.2%	7.3%	5.1%	5.6%	5.4%	5.0%	6.2%	6.9%	7.7%	7.6%
Direct Taxes	3.9%	4.3%	5.1%	3.4%	3.4%	3.4%	2.8%	3.1%	3.8%	3.8%	3.5%
Corporate Tax	2.9%	3.3%	4.1%	2.3%	2.5%	2.3%	1.8%	2.1%	2.5%	2.4%	2.3%
Income Tax	0.8%	0.8%	0.8%	0.8%	0.8%	0.9%	0.8%	0.8%	1.0%	1.1%	1.0%
Wealth or Property Tax	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Indirect Taxes	2.0%	1.9%	2.2%	1.8%	2.2%	2.0%	2.2%	3.0%	3.2%	4.0%	4.1%
Import Tax	1.5%	1.5%	1.5%	1.0%	1.2%	1.0%	0.8%	1.2%	1.0%	1.4%	1.5%
Sales and Consumption Tax	0.5%	0.4%	0.7%	0.8%	0.9%	1.0%	1.4%	1.9%	2.2%	2.6%	2.7%
Other Revenues	3.3%	3.6%	3.9%	2.0%	2.9%	2.4%	2.2%	2.3%	2.9%	3.4%	3.4%
Disposal of Non-Financial Assets	5.4%	5.6%	4.0%	8.7%	8.9%	5.8%	6.2%	5.5%	5.9%	5.6%	6.0%
Oil	5.3%	5.5%	4.0%	8.6%	8.9%	5.8%	6.1%	5.5%	5.9%	5.6%	6.0%
Others	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

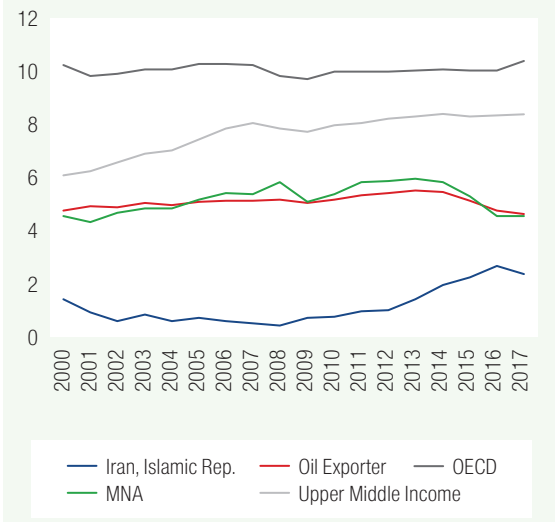
Source: CBI.

FIGURE 25 • General Government Taxes on International Trade and Transactions (% of Nominal GDP) (2000-2017)



Source: Find My Friends tool using the IMF World Economic Outlook.

FIGURE 26 • General Government Taxes on Goods and Services (% of Nominal GDP) (2000-2017)



Source: Find My Friends tool using the IMF World Economic Outlook.

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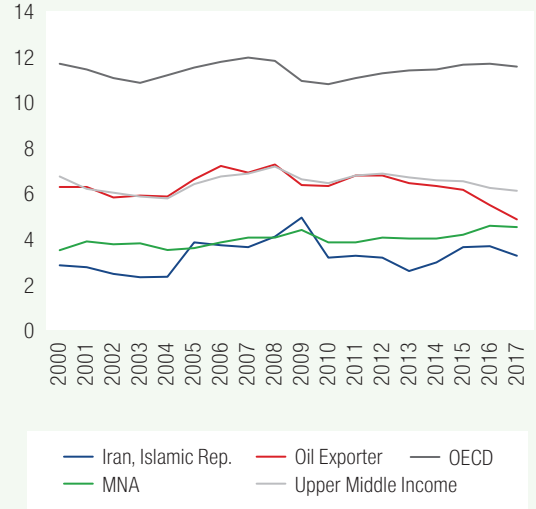
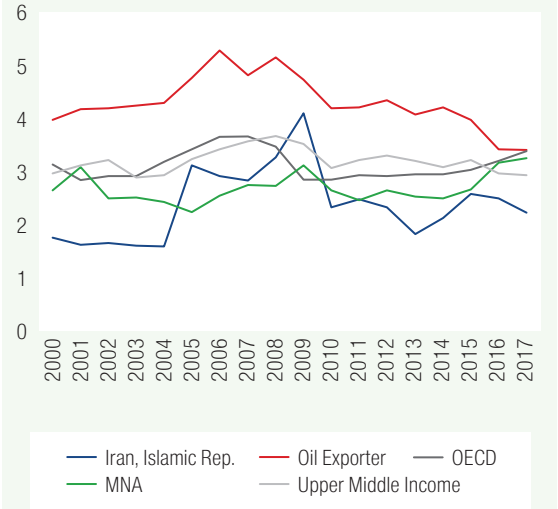
BOX 2 • **Benchmarking Iran's Government Revenue Collection to Other Comparators** *(continued)*

FIGURE 27 • General Government Taxes on Income, Profits, and Capital Gains (% of Nominal GDP) (2000-2017)



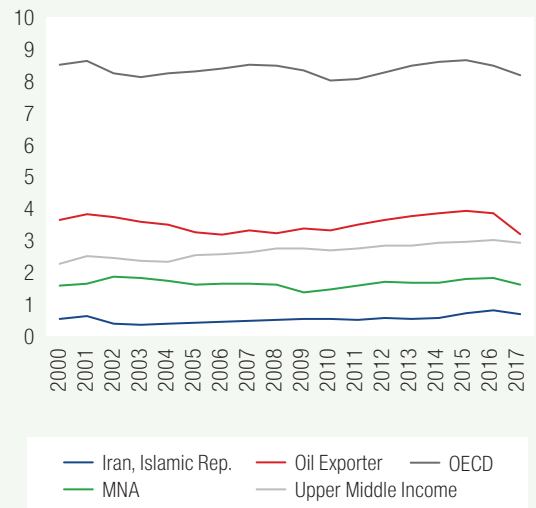
Source: Find My Friends tool using the IMF World Economic Outlook.

FIGURE 28 • General Government Taxes on Income, Profits, and Capital Gains, Payable by Corporations (% of Nominal GDP) (2000-2017)



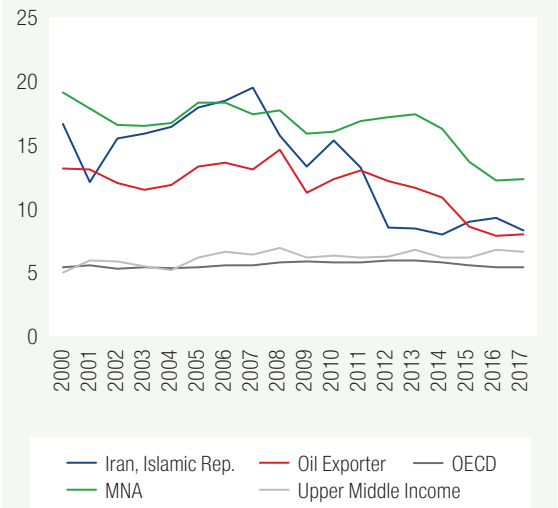
Source: Find My Friends tool using the IMF World Economic Outlook

FIGURE 29 • General Government Taxes on Income, Profits, and Capital Gains, Payable by Individuals (% of Nominal GDP) (2000-2017)



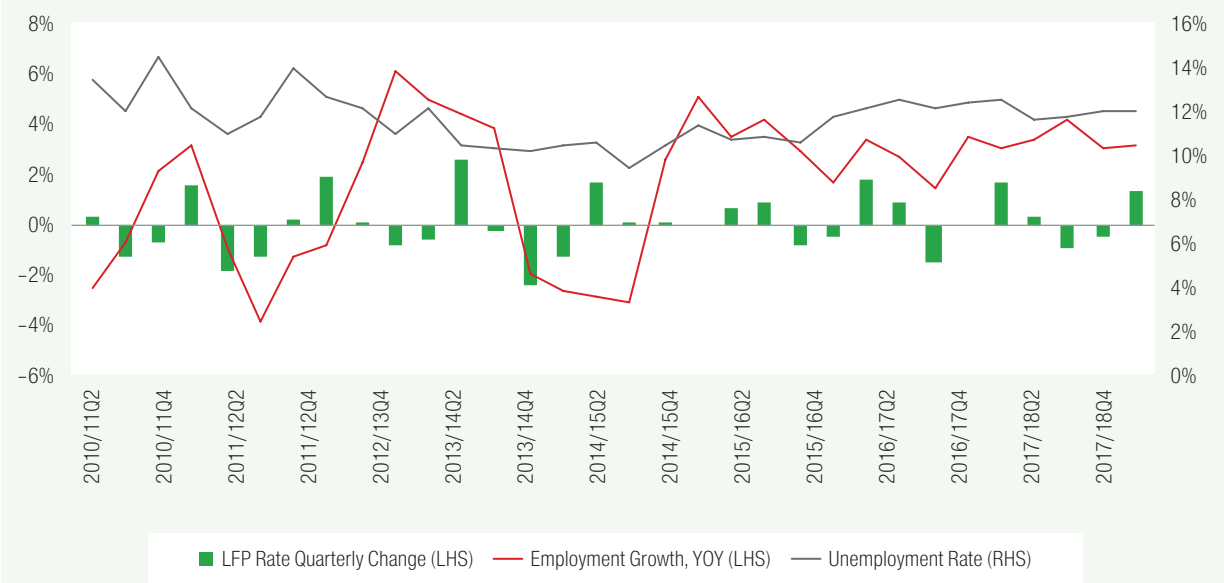
Source: Find My Friends tool using the IMF World Economic Outlook.

FIGURE 30 • General Government revenue, other (% of Nominal GDP) (2000-2017)



Source: Find My Friends tool using the IMF World Economic Outlook.

FIGURE 31 • Recent Trend in Selected Labor Market Indicators (%)



Source: SCI.

The current economic situation along with the depreciation of the exchange rate has both revenue and expenditure impacts for the government. Notwithstanding the turmoil in the exchange market that followed the unification of the exchange rates, the IRR42,000/USD rate announced in April (end of the first Iranian calendar month) meant the currency depreciated by around 9.1 percent compared to the budget assumed rate of 38,500 in a matter of a month. This was the same depreciation that occurred over the entire 2017/18 year. This depreciation affects revenues through higher rial oil revenues but higher inflation and reduced economic activity will most likely increase expenditures of government including salaries, consumption and the greater need for transfers in a worsening economic climate.

The 2018/19 proposed budget underwent a series of amendments by the parliament. The 2018/19 budget bill of the government was rejected in late January 2017 following concerns about the proposed reduction in the number of recipients for the energy cash handout allocations (equivalent to a reduction of almost 33 million recipients) and cutting energy subsidies.

The parliament's approved version puts the potential number of cash transfer recipients to around 55 million down from the 2017/18 level of 76 million people.[10] The price of petrol was authorized to increase in line with inflation which was assumed to be 10 percent instead of the 50 percent increase suggested in the government's original bill. Other main assumptions of the approved budget include an oil price of US$55 per barrel and IRR38,000 to USD exchange rate.

Jobs and Labor Market

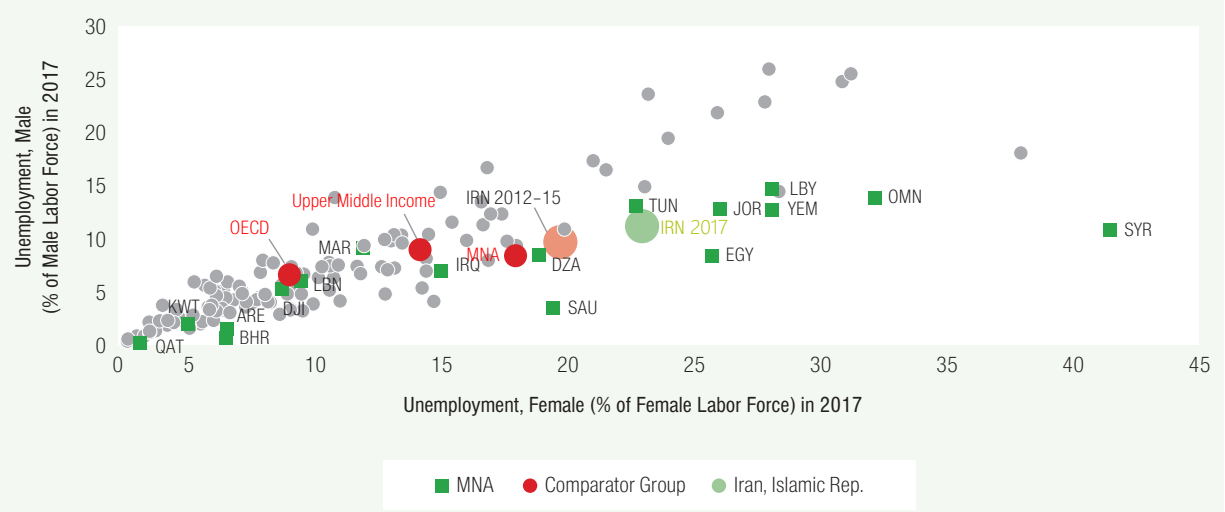
In June quarter 2018, the unemployment rate improved to 12.1 percent despite labor force participation edging up in the same period. The unemployment rate was 12.6 percent[11] in June quarter 2017 but fell to 11.7 percent in September quarter before edging up to 12.1

[9] https://bit.ly/2LlahCt.

[10] Iranian lawmakers block cuts to cash handouts, https://www.al-monitor.com/pulse/originals/2018/03/iran-budget-cash-subsidy-cuts-parliament-protest-aftermath.html.

[11] The official unemployment rate is based on the working age population of 10 years of age and above.

FIGURE 32 • Unemployment by Gender (%), 2017



Source: Find My Friend using World Development Indicators (WDI) data.

percent in June 2018. Underemployment share in 2017/18 was 10.4 percent. Labor force participation rate edged up to 41.1 percent in June quarter 2018, its highest level in more than 10 years.

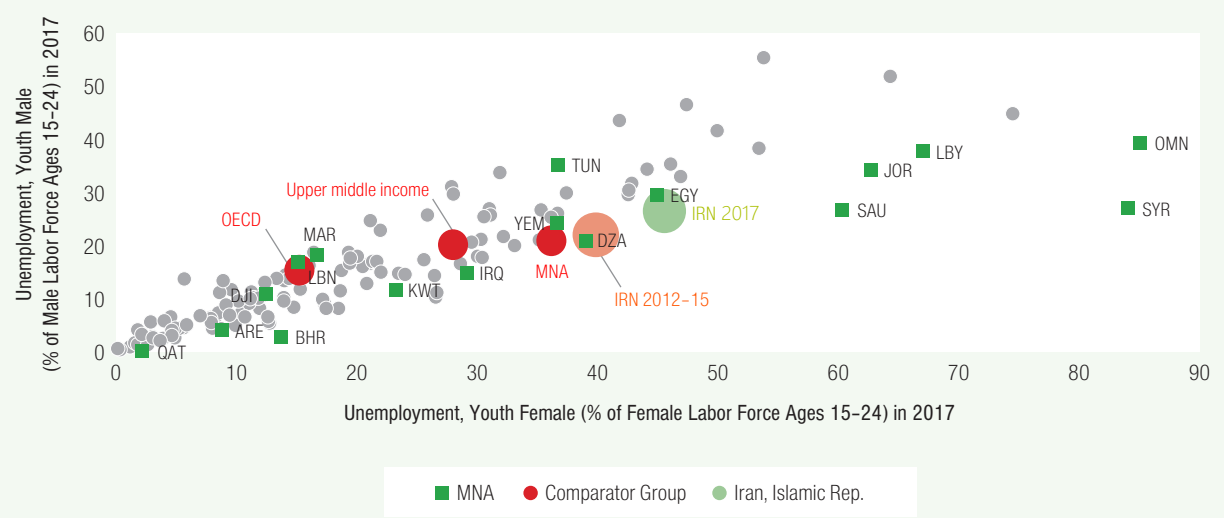
The economy managed to create a record number of new jobs in 2017/18. Employment growth has remained above 3 percent year on year for 6 consecutive quarters leading to more than 790 thousand jobs being created in 2017/18. The employment rate (employment-population ratio) reached a recent high of 35.4 percent. The trend in the sectoral employment shares continued with an increase in the shares of employment in services which increased to an all-time high of 50.4 percent in 2017/18 while agriculture fell to 17.6 percent and industry remained steady at 32 percent.

Youth unemployment improved in the June quarter 2018 but remains high compared to earlier periods and regional averages. Youth unemployment rate (15 to 24-year-old population) stood at 28.3 percent in June slightly better than a year ago. The rate, however, has worsened compared to the 2012–2015 average for both males and females in Iran (Figure 33 Youth unemployment by gender, 2017). This rate is higher than Iran's comparators including the average rate in MNA, upper middle-income countries and OECD averages. In June quarter 2018, the unemployment rate among those with university degrees was 17.8 percent.

While there have been some improvements in the female labor force indicators, considerable differences between male and female remain. Female labor force participation rate continued to improve to around 16 percent in 2017/18. The country ranks among the top countries that improved the participation of females in the labor force (Figure 34). Out of the new jobs created in the same year more than 300,000 went to females while male employment increased by over 400,000. A year earlier (2016/17), twice as more jobs had gone to the female labor force compared to those of males. The ratio of female to male employees in the industrial sector remains the lowest (one-sixth compared to almost a quarter in services and agriculture). The majority of the jobs for women remain part-time with only 14.5 percent of employed females in 2017/18 working full-time hours of 49 hours or more per week while it was 44.1 percent for men.

Acknowledging the important challenge of unemployment ahead, the government has prioritized job creation plans in the 2017/18 budget. Several plans are underway for new job creation and sustaining existing employment levels. These include the Universal Employment plan which

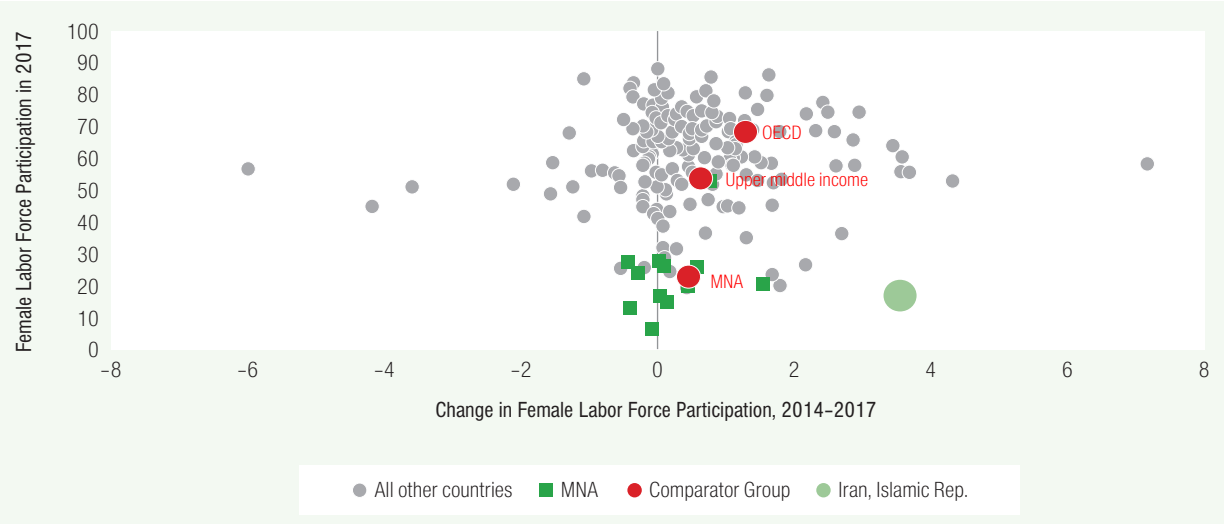
FIGURE 33 • Youth Unemployment by Gender (%), 2017



Source: Find My Friend using WDI data.

in the 2018/19 budget earmarks a total IRR500 trillion (US$11.9 billion) subsidized loans to be issued by the Ministry of Labor, agent banks and National Development Fund of Iran (NDFI) to those projects that the Ministry identifies as important for each province. In another national plan (*Tarh-e-Ronagh*) since 2016/17, committees in every province have been assessing loan requests from self-employed agricultural producers and Small Medium Enterprises (SMEs) in the industries and construction sectors for low interest rate credit. Under this plan in 2017/18 around IRR195 trillion (US$5.7 billion) of facilities were provided to over 28,000 SMEs. Based on a plan to support rural employment, a total of US$1.5

FIGURE 34 • Female Labor Force Participation Level and Change in Iran and the World*



Source: Find My Friends tool using WDI data.
Note: * Defined as percent of female population ages 15–64.

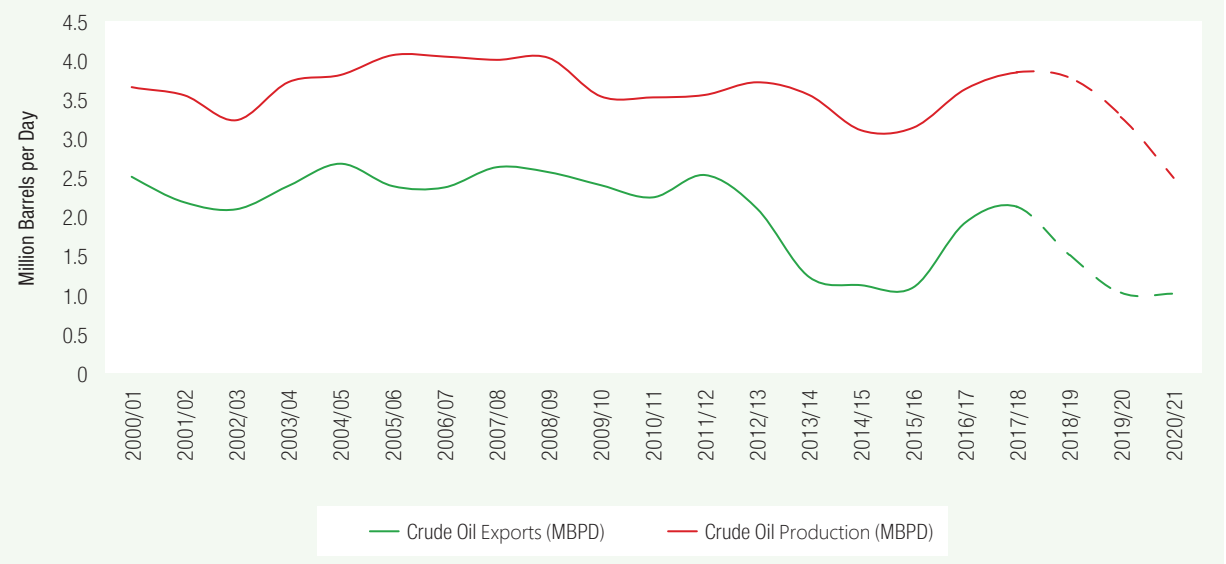
billion from the NDFI has been allocated to provide preferential loans to entities in cities and villages with less than 10,000 population with a priority for border regions and nomadic tribes. Despite these plans and considering the high correlation between non-oil sector and oil production, the government faces an even greater challenge of controlling unemployment as the economy moves back to the pre-2016 uncertainties.

2

OUTLOOK AND RISKS

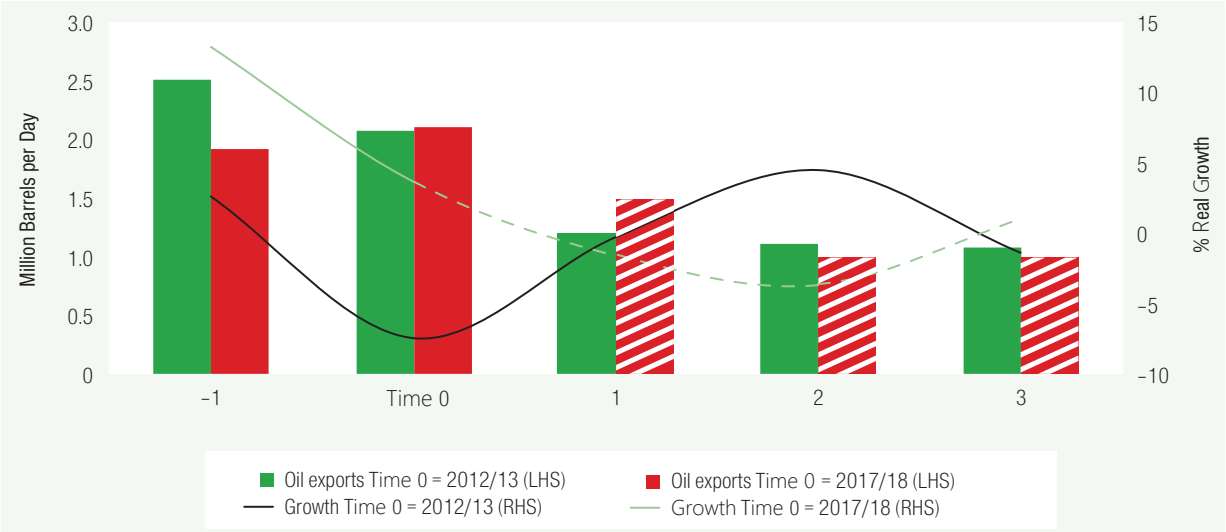
Medium-term prospects are negative, based on a reversion of oil exports to similar levels as that of the 2012–2015 period due to the reimposition of oil export sanctions by the US. The baseline scenario of the forecasts assumes a return of oil exports to the 2012–2015 levels (Figure 35). Crude oil exports are projected to average 1.5 mbpd in 2018/19 and reduce to 1 mbpd in the subsequent years from the current levels above 2.0. GDP is expected to contract by 1.6 percent in 2018/19 and then 3.7 percent the following year. Figure 36 shows the GDP growth and oil export profile of Iran for the projection years compared to the 2011/12–2015/16 period when sanctions were similarly introduced. The growth projections suggest Iran as one of a few countries in the 2018–2020 period that are expected to experience a period of recession and rising prices—stagflation (Figure 37) a phenomenon that challenged Iran from 2012/13 to 2013/14. This follows a dramatic departure from the growth outcomes of the past two years where they were amongst the fastest growing economies in the world (Figure 37) and inflation simultaneously falling to historically low levels. The Iranian economy is expected to undergo similar declines in growth and inflationary pressures as 2012–2015.

FIGURE 35 • Iran's Exports of Crude Oil and Production



Source: EIA and World Bank staff calculations.

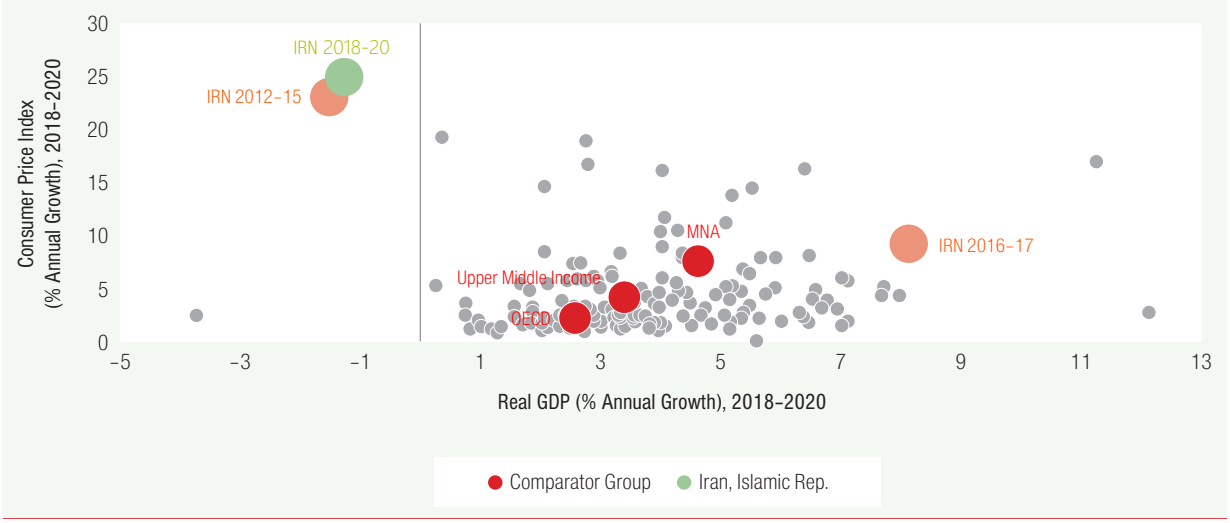
FIGURE 36 • Impact of Sanctions in 2012/13 on GDP Growth and Oil Exports Compared with Projections in 2017/18 and Beyond



Source: CBI, OPEC and World Bank staff calculations.

Downside risks weigh heavily on these projections as external pressures from the US sanctions may be more extensive than projected. The projections of oil exports face significant downside risks should major importers of Iranian oil including China, India and the EU cut their imports considerably and bringing oil exports below the 1 mbpd mark. Furthermore, if non-oil trade and transactions with Iran's main trading partners including China, UAE, Iraq and Turkey

FIGURE 37 • GDP Growth and Inflation Prospect of Iran and the World (%)



Source: Find My Friends tool using IMF WEO data and World Bank Staff calculations for Iran.
Note: For graphing purposes, Venezuela has been omitted from the graph.

are further curtailed due to direct and financial restriction imposed by the prospective US sanctions, economic growth could be even weaker in the outer years.

Amid the uncertainties regarding the prospects of the Iranian economy, the impact of inflationary expectations is likely to place additional downward pressure on growth and investment. The sudden depreciation of the exchange rate and its contagion to asset markets such as housing and gold coin highlights the importance of expectations for consumers as well the investment decisions of firms. While the CBI and other authorities have attempted to convey credibility in the markets, the policy changes have at times been inconsistent (e.g. in terms of tolerance of the parallel market) and have limited success in countering pessimistic expectations.

Recent changes in the government's economic management team and expectations for possible further changes signal a need for clarity on the contours of the adjustment strategy and the path of economic reforms.

Iran has access to international reserves and other buffers to cover imports and basic needs for a reasonable amount of time if needed (16 months of imports in 2016/17, IMF, 2018). The government has also announced plans to increase its reliance on tax income, especially indirect taxes, by fighting tax evasion and the introduction of a capital gains tax. Sustaining growth in the coming years will be an even greater challenge as the economy looks inward and must rely on better domestic economic policies. Since July 2018, key economic policy making posts of CBI Governor, Minister of Finance and Economic Affairs, Minister of Labor, Minister of Industries and Minister of Roads and Urban Development have been changed, and the Parliament has focused its attention on government plans to deal with the high unemployment rate and preparations for US sanctions. Amid these domestic dynamics the government will need to press on with planned and ongoing economic reforms including those in the banking sector and pension funds to avoid further downward pressure on the growth trajectory of the economy.

ANNEX

IRAN: SELECTED ECONOMIC INDICATORS (2015/16-2020/21)

	2015/16 Act.	2016/17 Act.	2017/18 Act.	2018/19 Est.	2019/20 Proj.	2020/21 Proj.
Real sector	(annual percentage change, unless otherwise specified)					
Real GDP at factor cost	-1.6	12.5	3.7	-1.6	-3.7	1.2
Total crude oil production (million barrels/day)	3.2	3.8	3.8	3.3	2.8	2.8
Crude oil, average price (US$)	50.8	42.8	52.8	65.0	65.0	65.4
Money and prices	(annual percentage change, unless otherwise specified)					
CPI Inflation (p.a)	11.9	9.0	9.6	23.8	31.2	19.6
Investment & saving	(percent of GDP, unless otherwise specified)					
Gross Capital Formation	34.0	35.7	37.8	37.0	35.3	32.6
Gross National Savings	36.4	39.6	41.4	37.6	35.3	33.7
Government finance	(percent of GDP, unless otherwise specified)					
Total revenues	15.7	16.7	17.0	13.3	11.3	12.2
Tax Revenues	6.9	7.7	7.6	6.3	5.8	6.2
Direct Taxes	3.8	3.8	3.5	2.9	2.6	2.7
Indirect Taxes	3.2	4.0	4.1	3.4	3.2	3.4
Total expenditures	17.4	18.9	18.7	18.0	16.5	17.0
Current	15.0	15.7	15.9	15.5	14.0	13.7
Net lending/borrowing (overall balance)	-1.7	-2.2	-1.8	-4.7	-5.2	-4.8
External sector	(percent of GDP, unless otherwise specified)					
Current Account	2.3	3.9	3.5	0.6	0.0	1.1
Net Exports	2.0	3.6	3.4	0.3	-0.2	1.3
Export of Goods and Services	19.3	22.4	25.0	17.6	13.8	12.8
Export of Goods	16.7	20.0	22.5	15.1	12.2	10.9
Export of Services	2.6	2.4	2.5	2.5	1.6	2.0
Import of Goods and Services	17.3	18.9	21.6	17.4	14.0	11.6
Imports of Goods	13.6	15.1	17.0	14.3	11.4	8.6
Imports of Services	3.7	3.8	4.6	3.1	2.6	3.0
Total Gross External Debt Stock (US$ bln)	7.5	8.5	10.9	9.3	10.1	10.1
Total Gross External Debt Stock (% of GDP)	1.9	2.0	2.7	2.3	2.5	2.2
Memorandum Items:						
Nominal GDP (Billion IRR*)	11,414,167	13,151,259	15,317,000	17,219,102	20,718,393	28,124,074

Source: Government data and World Bank staff calculations.
*IRR: Iranian Rials.

SPECIAL FOCUS: UNDERSTANDING POVERTY TRENDS AND CORRELATES IN IRAN DURING 2009-2016

Aziz Atamanov, Mohammad-Hadi Mostafavi, Djavad Salehi-Isfahani, and Matthew Wai-Poi[12]

This note continues and updates the special focus on monetary poverty published in 2016 in Iran Economic Monitor. It extends the existing poverty and inequality trends in Iran by adding the most recent years to now cover 2009–2016. Poverty is measured using international poverty lines based on U.S. dollars at 2011 purchasing power parity (PPP). The remarkable performance of Iran in poverty reduction during 2009–2012 was driven by the universal cash transfer program, which mitigated the adverse impacts of the energy tariff reforms. However, declining values of transfers in real terms could not sustain the poverty reduction or boost shared prosperity after 2012. Improvements in labor market outcomes may offer a more durable path to welfare improvement. Finally, Iran continues to have pronounced welfare gaps between rural and urban areas and between particular regions. Further research on reducing regional welfare disparities will be important for successful poverty reduction strategies.

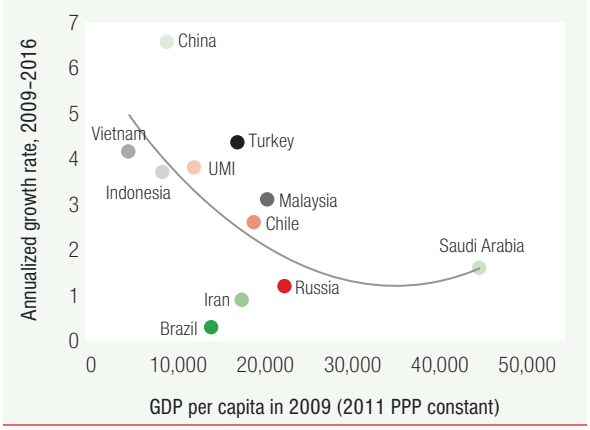
Introduction

Political and economic uncertainty led to volatile economic growth in Iran and had overall adverse effects on its macroeconomic performance during 2009–2016. As shown in Figure 38, annualized GDP per capita growth was close to one percent in Iran during 2009–2016, which is lower than growth rates observed among most of Iran's selected peers. The average growth rate masks substantial variation in Iran's GDP per capita growth rate during this period (Figure 39)—the highest among the comparators. Periods of sharp decline were followed by periods of growth reflecting the shocks the country was experiencing, including sanctions.

There is limited knowledge of the most recent trends in socio-economic wellbeing of the

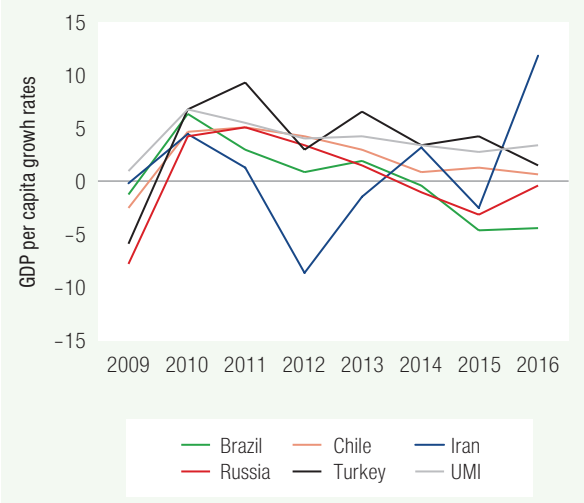
[12] This section is a product of the Poverty and Equity Global Practice. It has been written by Aziz Atamanov (lead author, World Bank), Matthew Wai-Poi (World Bank), Mohammad-Hadi Mostafavi (Consultant) and Djavad Salehi-Isfahani (Consultant). Measurement section draws heavily on the World Bank policy research working paper 7836 "Constructing robust poverty trends in the Islamic Republic of Iran: 2008–14" by Atamanov et al. (2016).

FIGURE 38 • Average Annualized GDP Per Capita Growth Rates During 2009-2016 and GDP Per Capita (2011 PPP) in 2009



Source: WDI, May of 2018. Authors' calculation.
Notes: Annualized growth rates in Figure 38 are calculated using geometric mean. UMI stands for upper middle-income countries.

FIGURE 39 • Annual GDP Per Capita Growth Rates in Iran and Selected Comparators (%), 2009-2016



Source: WDI, May of 2018. Authors' calculation.
Notes: Annualized growth rates in Figure 38 are calculated using geometric mean. UMI stands for upper middle-income countries.

population in Iran and their characteristics. Even though there are no publicly available "official" poverty estimates in Iran (poverty is measured by some line ministries, but results are not made public), estimates of poverty trends exist in the academic literature. These are calculated either based on authors' own assessment of an appropriate national line or according to international poverty lines based on U.S. dollars. Examples of such estimates in English cover different periods between 1984 and 2009 and are available in Assadzadeh and Paul (2004), Salehi-Isfahani (2009), Mahmoudi (2011), Nili and Poursadeghi (2011) and Maasoumi and Mahmoudi (2013). There is, however, little knowledge about trends in indicators of welfare in Iran in the most recent past, in particular after the second half of the 2000s. The special focus in Iran Economic Monitor (Karakurum-Ozdemir et al., 2016) filled the gap by constructing comparable international poverty and inequality trends after 2008 and analyzing its determinants. However, the most recent years (2015 and 2016) were not covered. In addition, the note did not explore characteristics of the poor and regional poverty profiles.

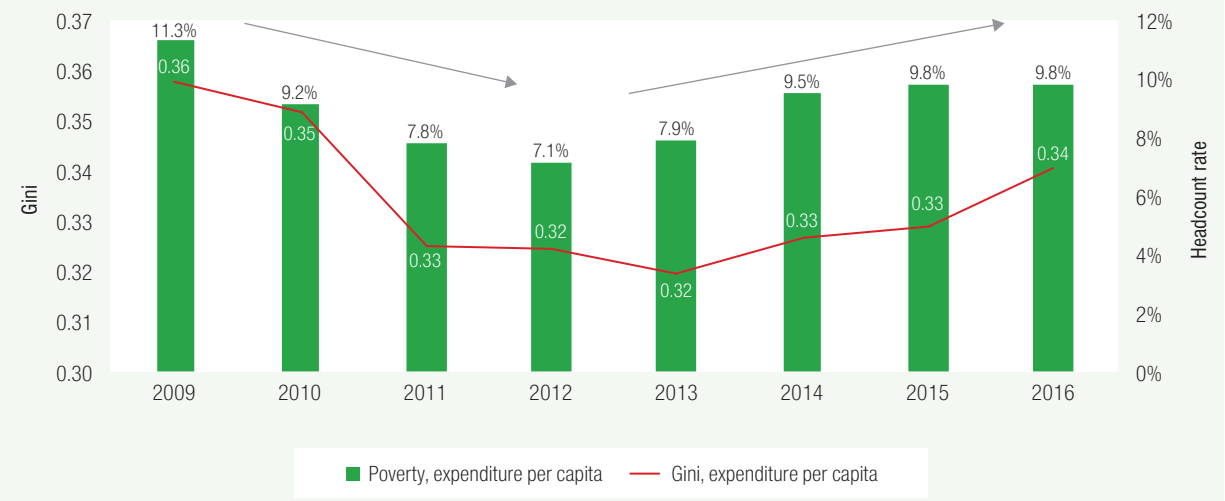
This note fills the existing knowledge gap by extending poverty and inequality trends in the Islamic Republic of Iran to cover 2009–2016. Given the absence of an official poverty line, poverty is measured using international poverty lines expressed in U.S. dollars at 2011 PPP. Poverty and inequality changes are decomposed to reveal the key factors behind the trends. Poverty is explored at the provincial and regional levels. Finally, simple poverty profiles are also compiled in order to identify the key socio-economic characteristics associated with poverty.

Stylized Facts on Poverty and Inequality in Iran for 2009-2016

Trends in poverty and inequality

The poverty measurement methodology applied in this section follows a well-established and widely accepted tradition. Measuring poverty requires two broad steps. The first step is to define an indicator to measure welfare or living standards. The second step requires setting a poverty line—the minimum welfare level below which a person is considered to be poor. Standard procedures were followed in order to construct the components of the welfare aggregate as well as price adjustments to ensure comparability within survey years and across them (Deaton and Zaidi, 2012; Haughton and Khandker, 2014).

FIGURE 40 • Poverty Rate ($5.5 2011 PPP Line) and Gini Coefficient in Iran, 2009-2016

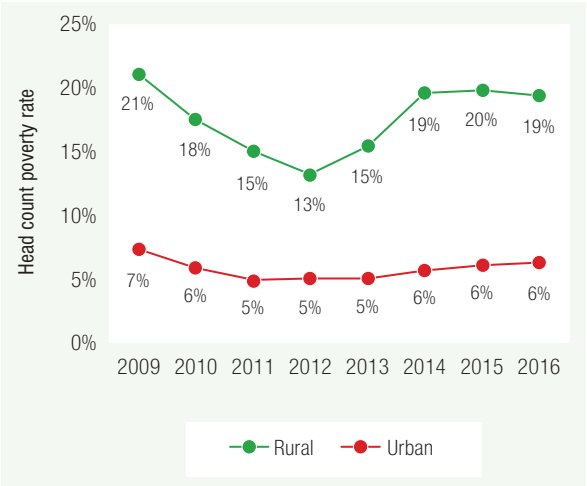


Source: Household Expenditure and Income Survey (HEIS) 2009–2016. Authors' calculations.
Note: International poverty rates reported in this section are different from the poverty rates reported by the World Bank in World Development Indicators and PovcalNet. The difference comes from the way welfare aggregate is created. In this note, the welfare aggregate excludes expenditure on health and durables for technical reasons, and is inter-temporally and spatially deflated to account for changes in prices during the survey period and spatial variation in prices.

Poverty lines in this section are expressed in U.S. dollars at 2011 PPP. The most widely used international poverty line is $1.90 (Ferreira et al. 2015). It was established by the World Bank as an average of the national poverty lines of the 15 poorest developing countries expressed in PPP terms to monitor global extreme poverty (Chen and Ravallion 2010). Extreme poverty is almost non-existent in Iran, so the $5.50 2011 PPP daily poverty line, also called upper middle-class line (Jolliffe and Prydz, 2016), is used in this note.[13, 14] Although the analysis uses the World Bank $5.50 PPP daily poverty line, the levels of poverty are slightly different than reported by the World Bank for global poverty monitoring, to permit a more granular analysis of annual poverty fluctuations between 2009 and 2016.

Two distinct trends in poverty and inequality are observed during 2009–2012 and 2012–2016 periods. Figure 40 shows estimated headcount poverty rates at $5.50 2011 PPP daily poverty line and the Gini coefficient based on expenditure per capita for 2009–2016. There are two distinct periods: a sharp fall in poverty and inequality during 2009–2012, and a gradual increase in poverty and inequality again after 2012. Similar trends are observed for lower poverty lines as well ($1.9 and $3.2 2011 PPP).

FIGURE 41 • Headcount Poverty Rates at $5.5 2011 PPP by Rural/Urban Areas, 2009-2016

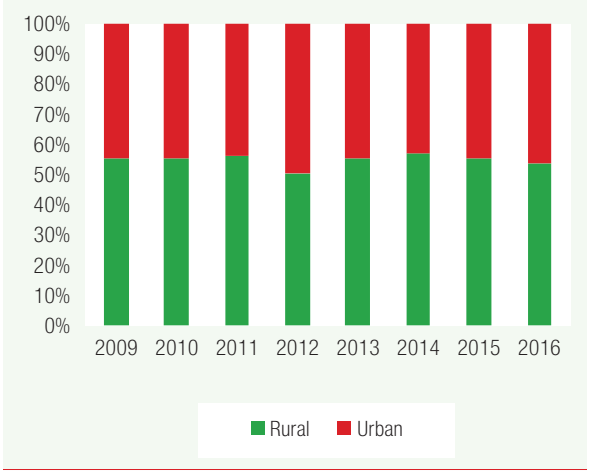


Source: Authors' calculation using HEIS 2009–2016.

[13] 5.5 USD 2011 PPP was about 68,220 Iranian rial in 2016 prices.

[14] Welfare aggregate was adjusted to within and across year inflation using weighted consumer prices index from Statistical Agency of Iran combining urban and rural prices. All welfare aggregates were expressed in 2011-year prices and transformed afterwards to 2011 PPP international dollars using ICP 2011 PPP exchange rates for household final consumption expenditure .

FIGURE 42 • Distribution of Poor Population Across Rural/urban Areas at $5.5 2011 PPP Poverty Line, 2009-2016



Source: Authors' calculation using HEIS 2009–2016.

National level trends hide stark rural/urban differences both in levels and trends in poverty. Figure 41 shows poverty rates in urban and rural areas of Iran.[15] All variation in poverty during the considered period was coming from the rural areas where headcount poverty rates were three times higher than in urban areas. In terms of absolute numbers, due to a highly urbanized population in Iran, the poor are distributed almost equally across rural and urban areas (Figure 42).

Iran managed to sustain positive growth in per capita expenditure for the bottom 40 percent of the population during 2009–2012 in spite of an overall average negative growth rate. One of the ways to check whether the benefits of economic growth are shared widely among the population, especially among the least well-off, is to construct a growth incidence curve (GIC). A GIC shows real expenditure per capita growth rates across the whole distribution of a population. Figure 43 shows GICs for two periods: 2009-12 and 2012-16. During the first period 2009–12, the poorest bottom 40 percent of the population experienced positive expenditure per capita growth, despite a negative growth rate across the whole population on average (red line). During the second period 2012–16, while growth rates were more equal across the distribution, the poorest 20 percent experienced a slightly higher decline in expenditure per capita compared to the rest of distribution, contributing to increasing poverty and inequality.

How does Iran compare with its peers?

The level of poverty in Iran is comparable to what is observed in countries with a similar level of economic development. Figure 44 shows poverty rates in Iran and selected peers circa 2014. While welfare aggregates among different countries are not strictly comparable, this rough comparison reveals that for the most recent years, Iran's poverty rate is broadly within a range of poverty rates observed in countries with similar economic wellbeing: Turkey, Chile, and Malaysia (using an international poverty line of $5.50 2011 PPP per day). Vietnam, Indonesia, and China have much higher poverty rates, but also much lower GDP per capita in 2011 PPP (Figure 44).

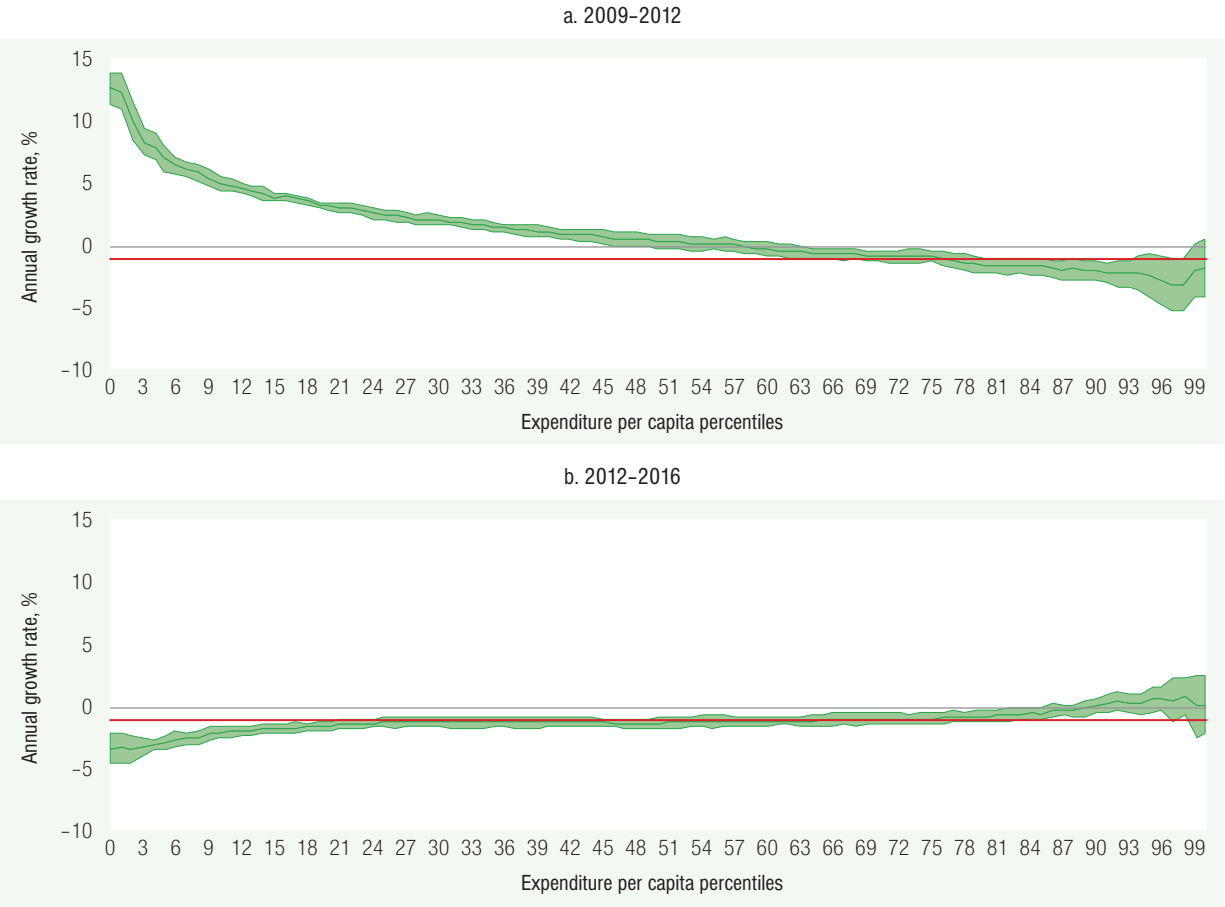
The level of inequality is also quite low in Iran compared to its peers. Comparing the level of inequality across countries is usually full of caveats for many reasons including the use of "income" by some countries and "consumption" by others. Keeping this in mind, inequality in Iran is lower than that which is observed in countries with a similar level of economic development regardless of the type of welfare aggregate used (income or consumption per capita). Thus, the Gini index based on spatially adjusted expenditure per capita is around 34.0 and based on nominal expenditure is around 37.6, which is lower than in Turkey and Malaysia (Figure 45).

Explaining Welfare Changes in 2009-2016

There was an apparent disconnect between the macroeconomic performance and welfare trends in Iran in selected years. Figure 46 combines real growth rates of GDP in Iran with poverty rates at the $5.50 2011 PPP poverty line. Poverty continued

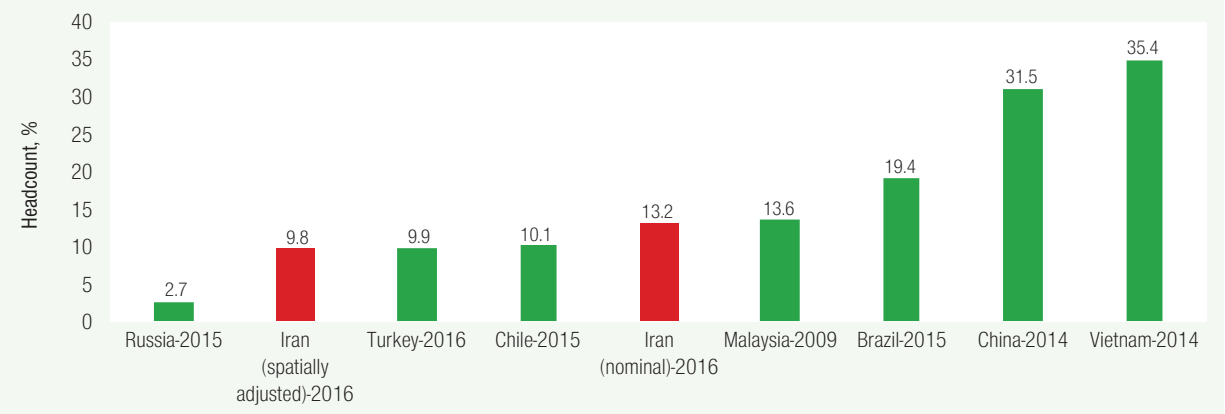
[15] Comparing welfare across urban and rural areas in Iran should take into account substantial differences in prices across areas. As explained in Atamanov et al. (2016), expenditure aggregate is adjusted for variation in food and rent prices across rural and urban areas within eight aggregated regions. The food spatial deflator is constructed from unit values of purchased food products from the survey. Rent deflator is calculated based on predicted rents for a typical dwelling.

FIGURE 43 • Growth Incidence Curve Showing Annualized Real Expenditure Per Capita Growth Rates by Percentiles, %



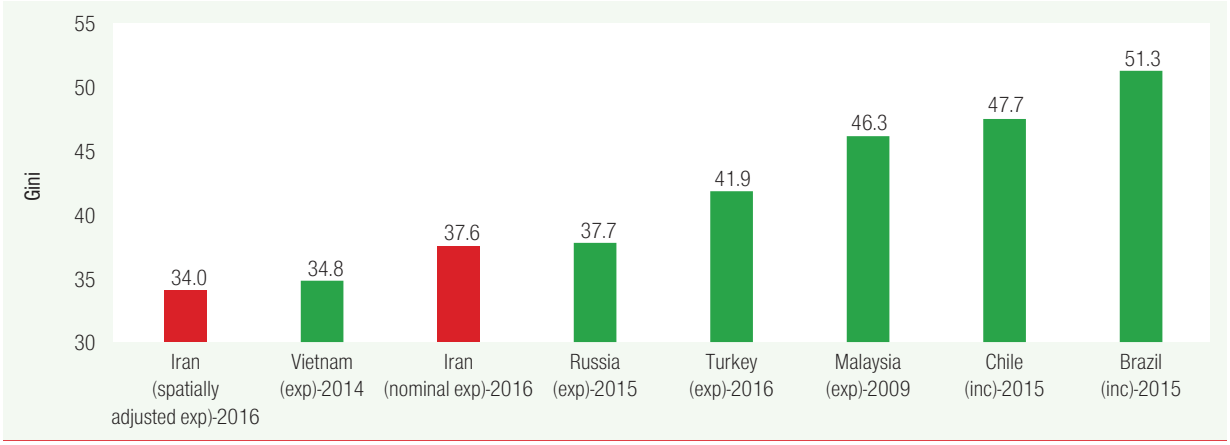
Source: Authors' calculation using HEIS 2009–2016.

FIGURE 44 • Poverty Rates in Iran and Selected Comparators at $5.5 2011 PPP Daily Poverty Line Circa 2014, %



Source: HEIS 2016 and PovcalNet as of July 2018. Authors' calculations.
Note: The international poverty rate and Gini coefficient for Iran are slightly different from the poverty rates reported by the World Bank in World Development Indicators and PovcalNet. The difference comes from the way welfare aggregate is created. In this note, the welfare aggregate excludes expenditure on health and durables for technical reasons and is inter-temporally and spatially deflated to account for changes in prices during the survey period and spatial variation in prices. See footnote 15 about spatial deflation.

FIGURE 45 • The Gini Coefficient in Iran and Selected Comparators Circa 2014

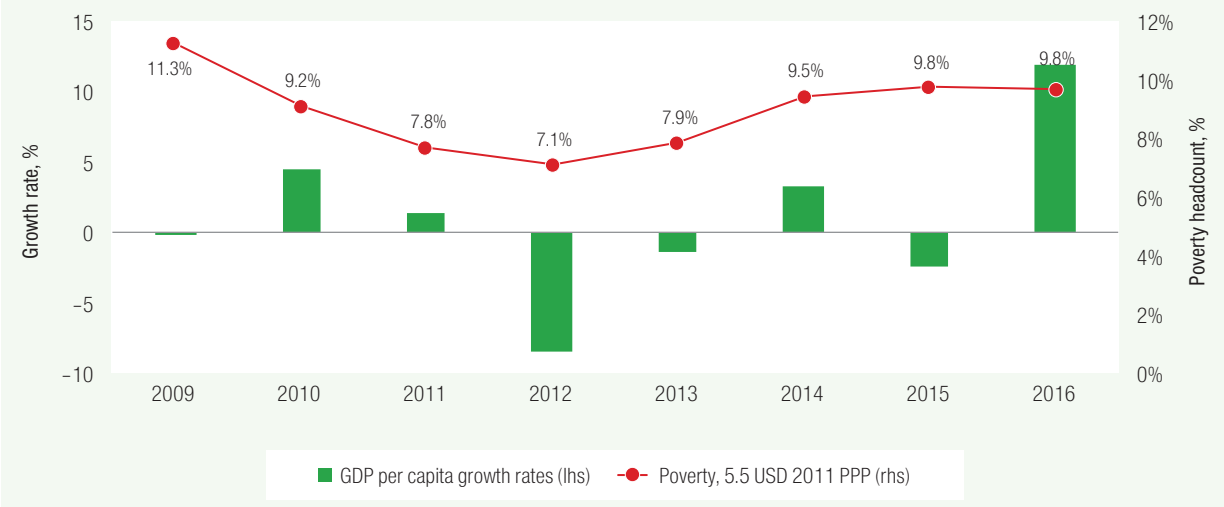


Source: HEIS 2016 and PovcalNet as of July 2018. Authors' calculations.
Note: The international poverty rate and Gini coefficient for Iran are slightly different from the poverty rates reported by the World Bank in World Development Indicators and PovcalNet. The difference comes from the way welfare aggregate is created. In this note, the welfare aggregate excludes expenditure on health and durables for technical reasons and is inter-temporally and spatially deflated to account for changes in prices during the survey period and spatial variation in prices. See footnote 15 about spatial deflation.

to fall in 2012 despite a large decline in GDP per capita. Conversely, higher poverty was experienced after 2012 even with the observed positive economic growth in 2014 and 2016. The rest of this section explores this counter-intuitive result.

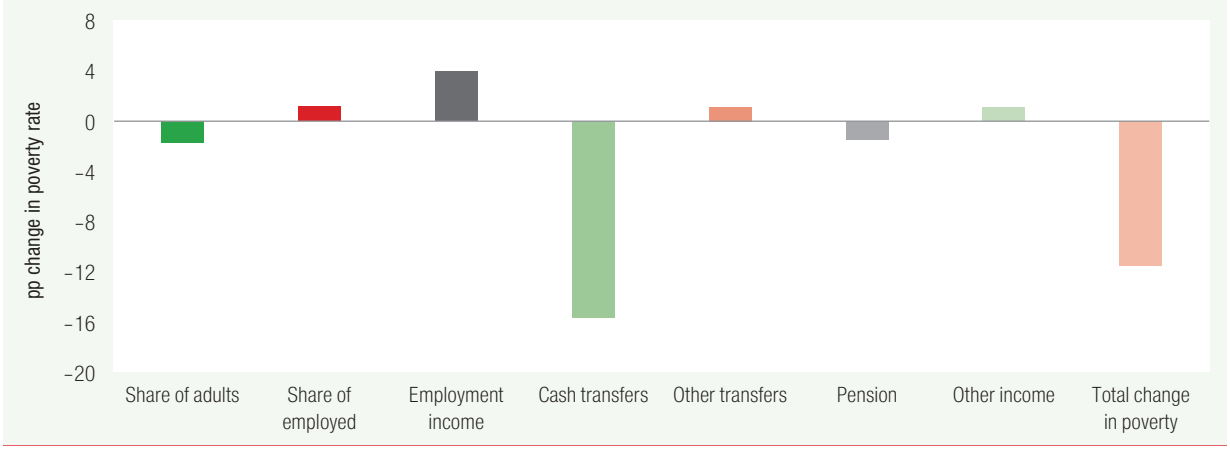
The apparent disconnect between economic growth and welfare may happen for many reasons. It may be related to the lagged impact of economic growth or the lack of a trickle-down effect. In addition, redistributive government policies could play a protective role. A definite answer requires identifying and quantifying the sources of poverty changes during the period considered. One way of doing this is to decompose changes in income poverty into changes in income sources (Azevedo, Minh, and Sanfelice 2012). This will help to identify

FIGURE 46 • GDP Growth Rates and Poverty Rates in Iran, 2009–2016



Source: Authors' calculation using HEIS 2009–2016. WDI, May of 2018.

FIGURE 47 • Sources of Income Poverty Changes at $5.5 2011 PPP Poverty Line, 2009-2012, Percentage Points



Source: Authors' calculation using HEIS 2009-2016.
Note: The levels of income poverty are different from the level of poverty based on expenditure per capita, nevertheless their trends are qualitatively similar. The income welfare aggregate is spatially deflated. Share of adults measures share of working age adults in total household size.

the key drivers underlying the increase or decline in income poverty and inequality.[16] We select two periods for the analysis: the first is 2009–2012 when there was a sharp poverty reduction, and the second is 2012–2016 when welfare indicators deteriorated. The total income aggregate consists of labor income, cash transfers, other transfers (scholarships, private transfers, charity and welfare transfers), pensions, property income (interests, capital, land, and rent) and income from products sold from home.[17] Income poverty and inequality are higher than those based on expenditures, but the trends are similar (see Figure A1 and Figure A2 in the annex).

Cash transfers were the key contributors to the fall in poverty during 2009–2012, counterbalancing the negative impact coming from the labor market. Figure 47 shows contributors to income poverty changes in 2009–2012. In total, income poverty dropped by 11.5 percentage points. The key driving force behind this remarkable fall was social assistance in the form of universal cash transfers the government distributed to compensate for increasing energy prices after subsidy reform.[18] In particular, income poverty fell by 15.8 percentage points due to cash transfers. Generous universal cash transfers counterbalanced the negative impact of labor market deterioration where decrease in both employment and employment income contributed to higher income poverty, consistent with falling growth.

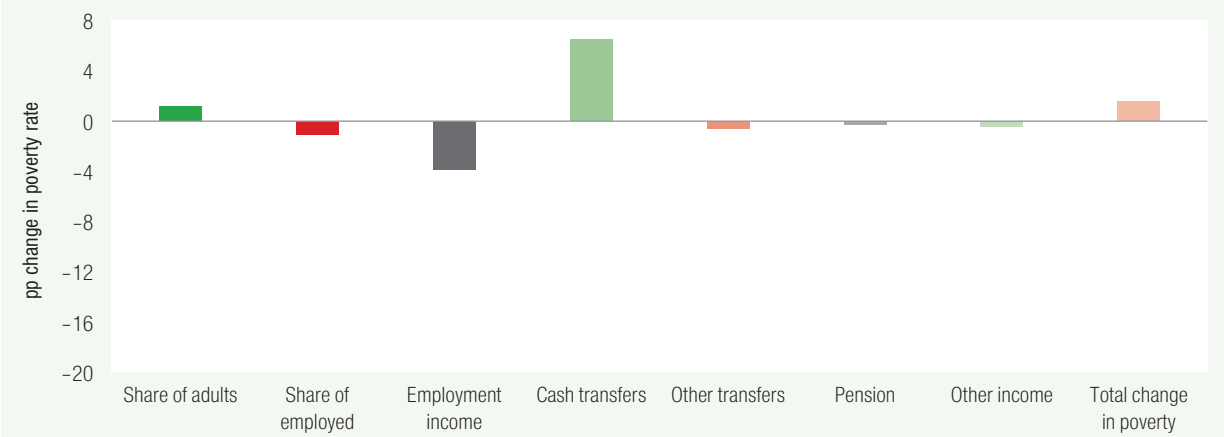
The erosion of cash transfers in real terms contributed to the increase in poverty in 2012–2016 with a counteracting impact from the labor market. Figure 48 shows the main contributors to poverty changes in 2012–2016. In contrast to 2009–2012, the role of benefits flipped.

[16] One may also use the Datt-Ravallion (1992) decomposition, which splits the change in poverty into distribution-neutral growth and redistribution effects. According to this, the decline in poverty between 2009 and 2012 was fully driven by redistribution, while the growth effect contributed to higher poverty. During 2012 and 2016 both growth and redistribution effects were increasing poverty. The income poverty decomposition used in this note goes beyond this and has an advantage of being able to quantify contributions of different income sources to changes in poverty and inequality.

[17] Income aggregate is also spatially deflated to account for difference in prices across different areas. To do spatial adjustment a weighted spatial deflator was constructed by combining rent and food deflators. Shares of rent in the total welfare aggregate were used to construct a weighted deflator for each household.

[18] This is consistent with early findings from Salehi-Isfahani, Stucki and Deutschmann (2015).

FIGURE 48 • Sources of Income Poverty Changes at $5.5 2011 PPP Poverty Line, 2012–2016, Percentage Points

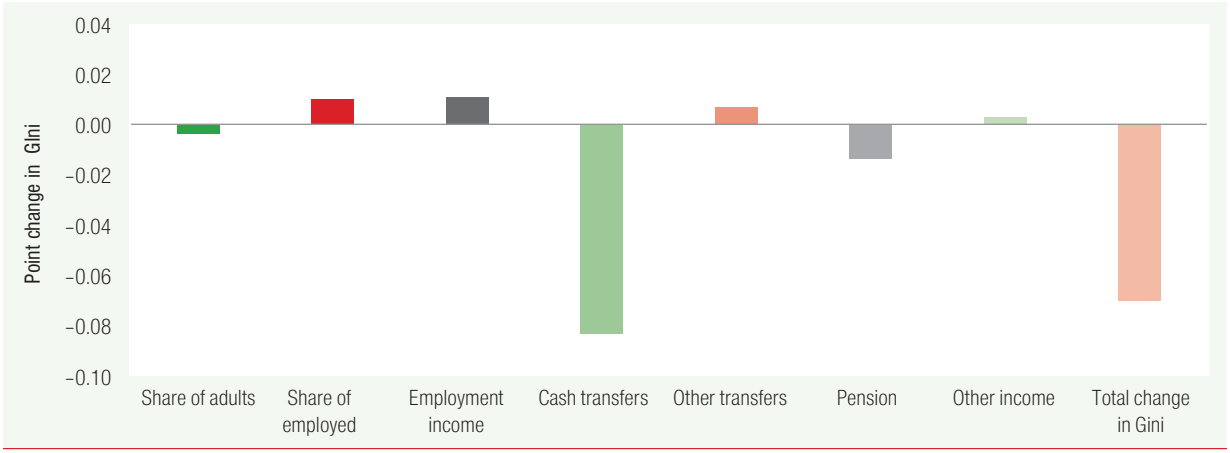


Source: Authors' calculation using HEIS 2009–2016.
Note: The levels of income poverty are different from the level of poverty based on expenditure per capita, nevertheless their trends are qualitatively similar. The income welfare aggregate is spatially deflated. Share of adults measures share of working age adults in total household size.

As a consequence of high inflation, the real value of benefits diminished and this was the key factor behind the increase in poverty. The size of social assistance per capita dropped by half in real terms between 2016 and 2012. As the same time, there was a positive contribution to poverty reduction coming from the expanding economy and labor market, mainly from employment income, but it was not enough to offset the negative impact of diminishing social assistance.

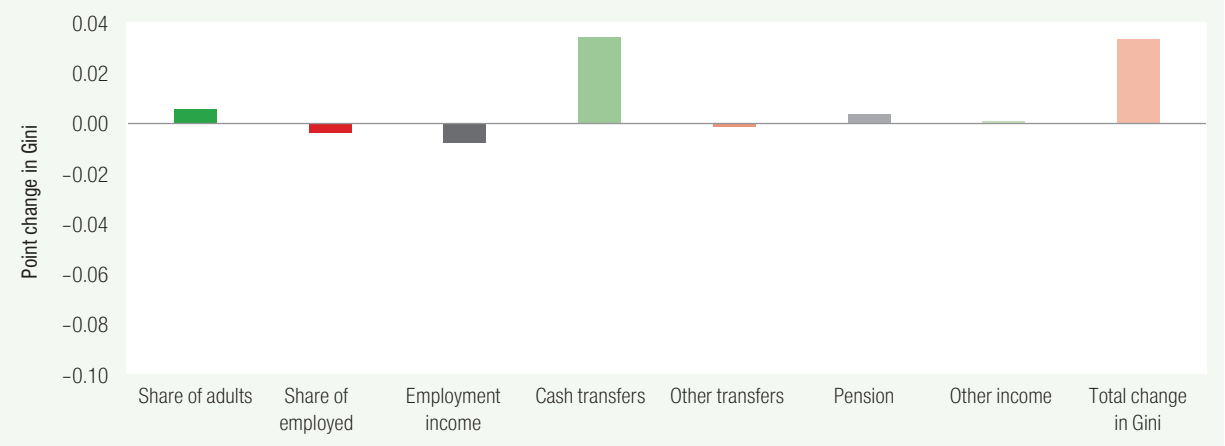
Cash transfers were also the key factor behind the decline in inequality between 2009-12 and an increase between 2012-16. Figure 49 and 50 demonstrate that social assistance in the form of cash transfers was the most equalizing source of income during 2009–2012 in reducing the Gini coefficient, but was the most un-equalizing source in 2012–2016. This is not surprising given that the cash transfers represent a much higher proportion of total income for poorer households than richer households. In fact, cash transfers in 2012

FIGURE 49 • Sources of Income Inequality Changes Measured by Gini, 2009–2012



Source: Authors' calculation using HEIS 2009–2016.
Note: Income welfare aggregate is spatially deflated.

FIGURE 50 • Sources of Income Inequality Changes Measured by Gini, 2012–2016



Source: Authors' calculation using HEIS 2009–2016.
Note: Income welfare aggregate is spatially deflated.

accounted for almost half of total income of the poorest 20 percent of population (based on income per capita). Thus, the cash transfers initially reduced inequality as they mean more to the poor, but then inequality increased as the real value of these transfers declined, affecting the poor more. Employment income started playing a slightly equalizing role in 2012–2016. This is associated with the fact that real growth in employment income per capita was the highest for the population from the bottom of the distribution.[19]

Profile of Poverty

Geography of poverty

There is substantial variation in poverty rates across Iranian provinces. Besides the rural and urban poverty gap, there is substantial variation in poverty across Iranian provinces. Figure 51 shows interval estimates of provincial poverty rates at the $5.5 2011 PPP daily poverty line. Poverty ranges from nearly zero in Mazandaran to 33 percent in Kerman and 53 percent in Sistan & Baluchestan.

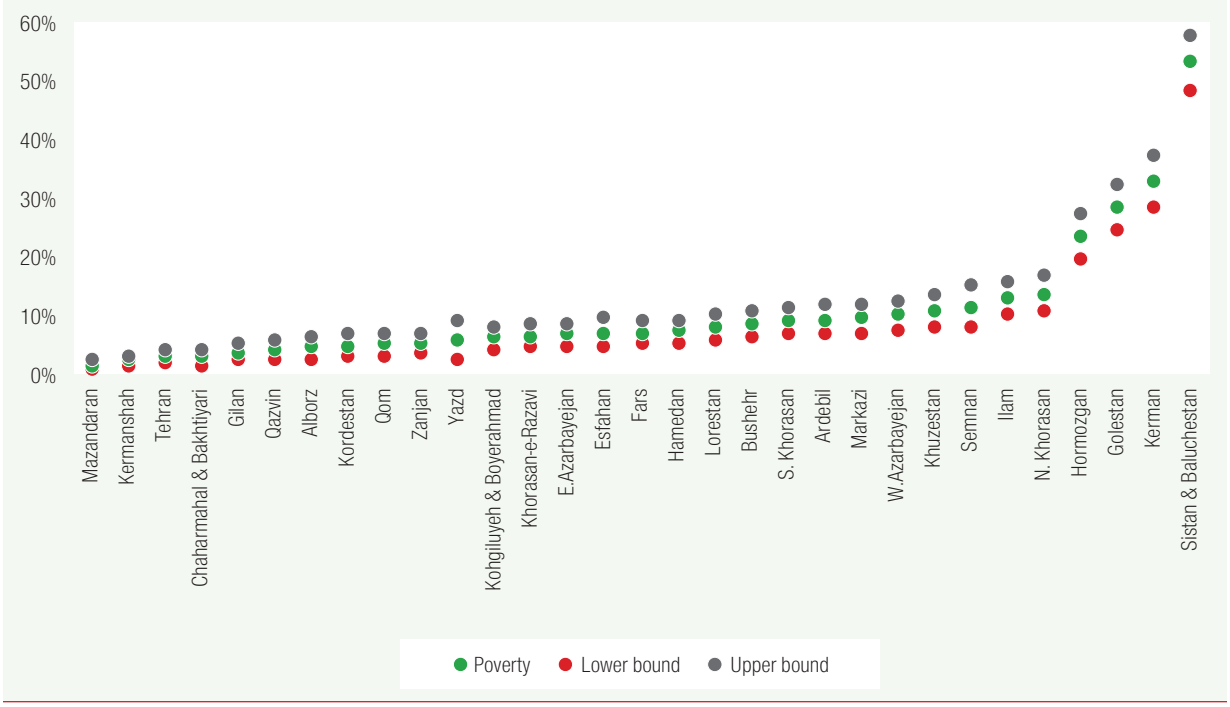
Merging provinces into larger regions, reduces variation in poverty rates. If provinces are grouped into nine regions, regional variation in poverty rates becomes smaller (Table 3). The lowest poverty rate in 2016 was observed in region 6 (Tehran, Qom, Alborz)—around 3 percent. In all other regions poverty at $5.5 2011 PPP did not exceed 10 percent except region 8. This region includes the poorest Sistan & Baluchestan and Kerman provinces and poverty rate in 2016 reached 34 percent there.

Provincial poverty rates seem to be correlated with the level of urbanization, employment, inequality and access to infrastructure observed in provinces. Simple graphs plotting provincial poverty rates versus selected provincial level characteristics can be informative. Figure 52 shows that poverty in 2016 was higher in provinces with a lower share of urban population, higher unemployment rates, lower access to piped sewage and higher inequality.

Regional level specific factors contribute to observed differences in poverty rates across provinces, and warrant further research. Simple correlations do not indicate whether there is something about certain provinces which makes them have higher or lower poverty rates, beyond whether they have more- or less-educated people, more or less employment, and so forth. In order to formally test whether provincial location remains a significant factor affecting poverty

[19] In particular, growth rate in real employment income between 2012–2016 was 31 percent for the poorest quintile (based on income per capita) compared to average 26 percent growth rate for the total population.

FIGURE 51 • Headcount Poverty Rates in Iran by Provinces in 2016 at $5.5 2011 PPP Poverty Line, %



Source: Authors' calculation using HEIS 2016.
Note: The upper and lower bounds represent a 95 percent confidence interval.

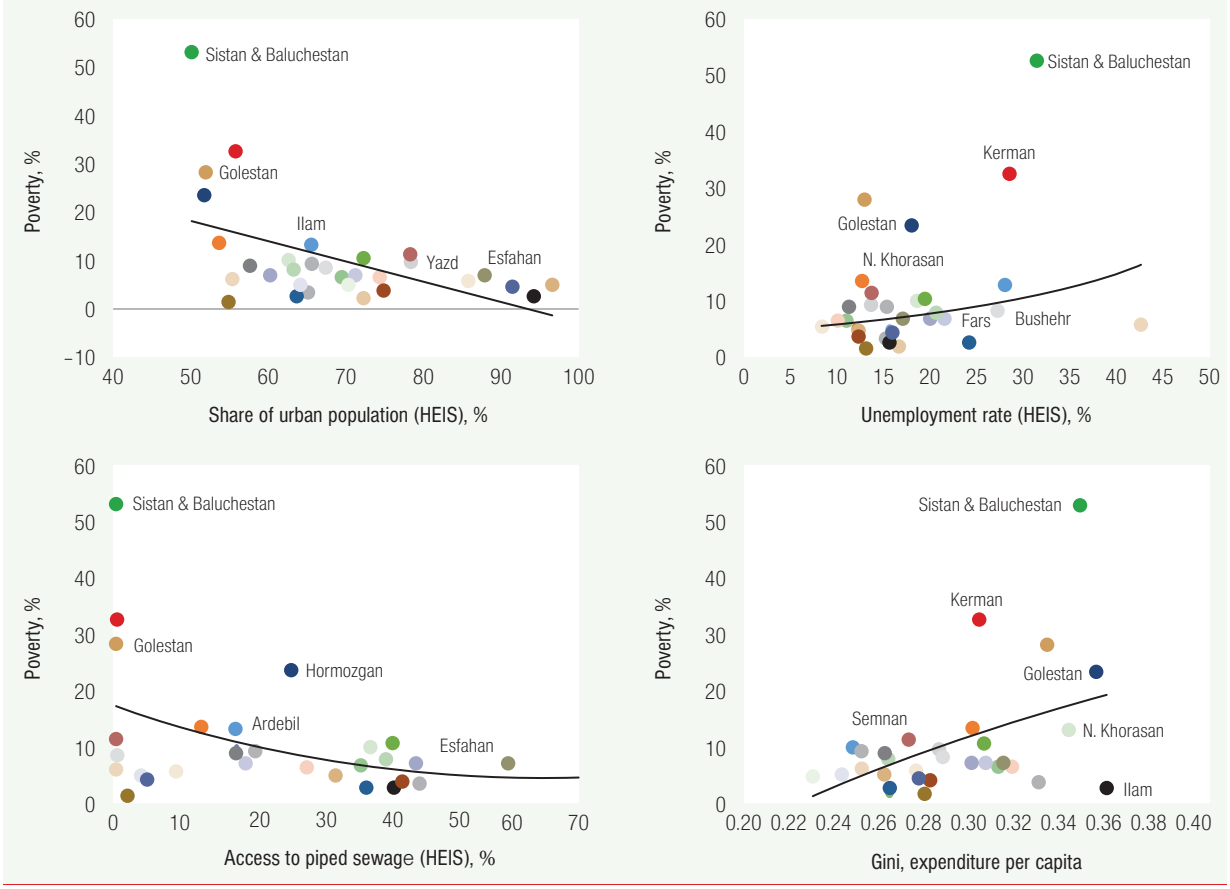
after controlling for household level characteristics, a simple multivariate probit regression was run explaining probability of being poor in 2016. Explanatory variables included household demographic characteristics, head of household education, employment status and sector of employment. Even after controlling for these household specific factors, most of provinces remained significant in explaining the probability of being poor. In particular, the population in Sistan & Baluchestan, Kerman and Golestan is found to have

TABLE 3 • Headcount Poverty Rates at $5.5 2011 PPP by Nine Regions in 2016

	Poverty	Lower bound	Upper bound
region 1 (Gilan, Mazandaran, Golestan, Semnan)	9%	8%	10%
region 2 (E. Azarbayejan, W. Azarbayejan, Ardebil, Kordestan)	8%	7%	9%
region 3 (Hamedan, Kermanshah, Lorestan, Ilam)	6%	5%	7%
region 4 (Esfahan, Chaharmahal & Bakhtiyari, Khuzestan)	8%	7%	10%
region 5 (Fars, Bushehr, Kohgiluyeh & Boyerahmad)	7%	6%	8%
region 6 (Tehran, Qom, Alborz)	3%	2%	4%
region 7 (Zanjan, Qazvin, Markazi)	6%	5%	8%
region 8 (Yazd, Kerman, Sistan & Baluchestan, Hormozgan)	34%	32%	36%
region 9 (S. Khorasan, Khorasan-e-Razavi, N. Khorasan)	7%	6%	9%

Source: Authors' calculation using HEIS 2016.
Note: The upper and lower bounds represent a 95 percent confidence interval.

FIGURE 52 • Headcount Poverty Rates at $5.5 2011 PPP Poverty Line in Iran by Provinces in 2016 and Different Provincial Level Variables



Source: Authors' calculation using HEIS 2016.
Note: All indicators are constructed from HEIS-2016. Some indicators like unemployment rate can be very different from official numbers based on the labor force survey.

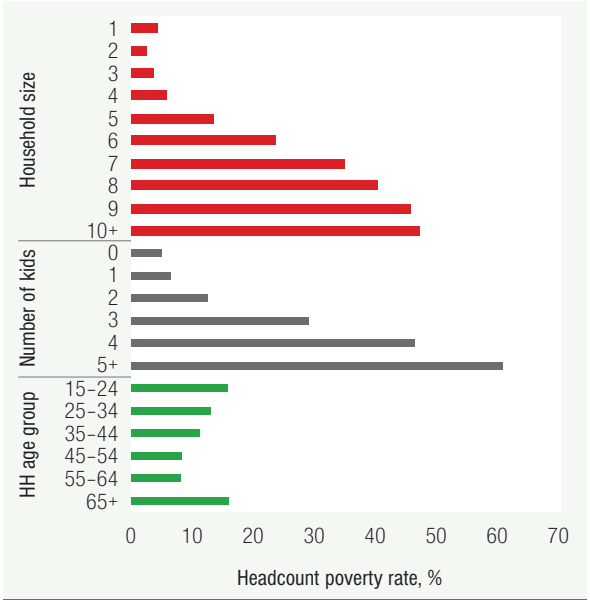
the highest probability of being poor (24, 22 and 18 percent accordingly), even after accounting for household characteristics.

Profile of the poor

Larger households with many children are more likely to have higher poverty rates. Household demographic structure is strongly correlated with poverty status. This is not surprising given that the international poverty lines are defined in expenditure per capita terms and do not account for either economies of scale enjoyed by larger households or for lower child calorie requirements. Thus, poverty rate increases by 10 times in households with 10 members and above compared to one-member households (Figure 53). Consistently, poverty gradually increases with more children. In particular, the poverty rate increases by 9 times in households with five children and above compared to households with only one child. Poverty rates are also higher among households headed by younger heads.

Labor force status, sector and type of employment are important correlates of poverty in Iran. Figure 54, Figure 55 and Figure 56 show headcount poverty rates depending on the employment status of the head of household. The population size of each group is also shown in each figure. As expected, having unemployed head of household is associated with the highest risk of poverty. About 2.7 million people in Iran belong to this group. However, being employed does not guarantee escape from poverty; 18 percent

FIGURE 53 • Headcount Poverty Rates in Iran at $5.5 2011 PPP Poverty Line by Household Demographic Characteristics in 2016, %



Source: Authors' calculation using HEIS 2016.

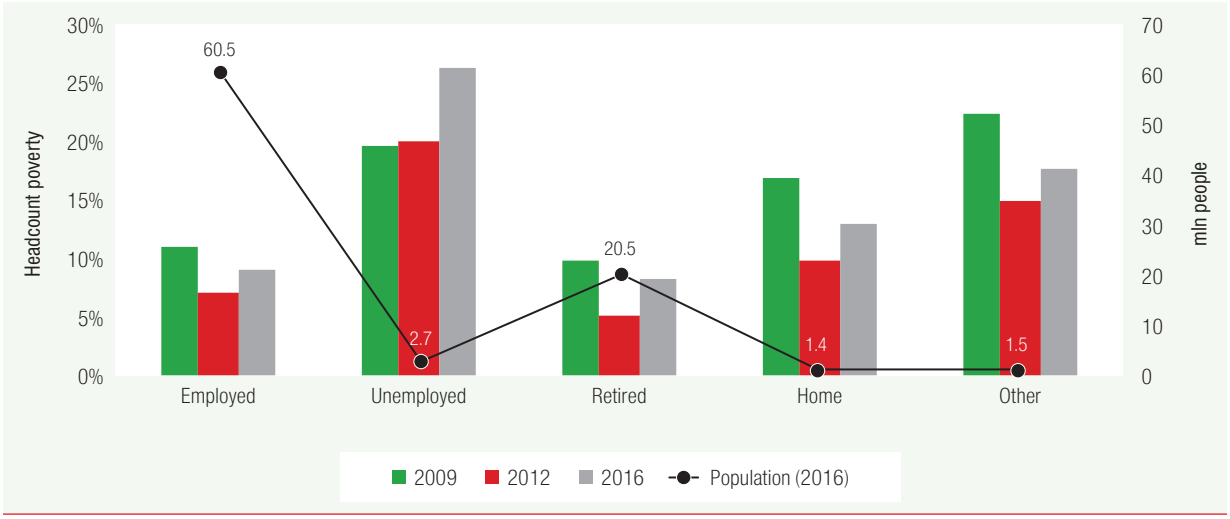
of households with a head employed in agriculture were still in poverty in 2016. The population with heads employed in agriculture is significant—around 11.5 million people in 2016. Consistent with this finding, heads with occupations in agriculture and unskilled professions have the highest risk of poverty.

A large share of youth aged 15–29 is out of education and employment and this group of population is over-represented among the poorest quintile of population and women. Youth have particular issues with access to employment opportunities. In particular, around 40 percent of youth aged 15–29 are not employed and are not in educational institutions. This share is the largest among the poorest quintile of population at 49 percent and among women, at around 58 percent.

Despite high and increasing school enrollment rates, there is a significant degree of inequality between the poor and the rich. Iran belongs to countries with high human development, according to the Human Development Index (UNDP, 2017), which was gradually increasing over the years. One of the components of the index is access to education.[20] Using household budget

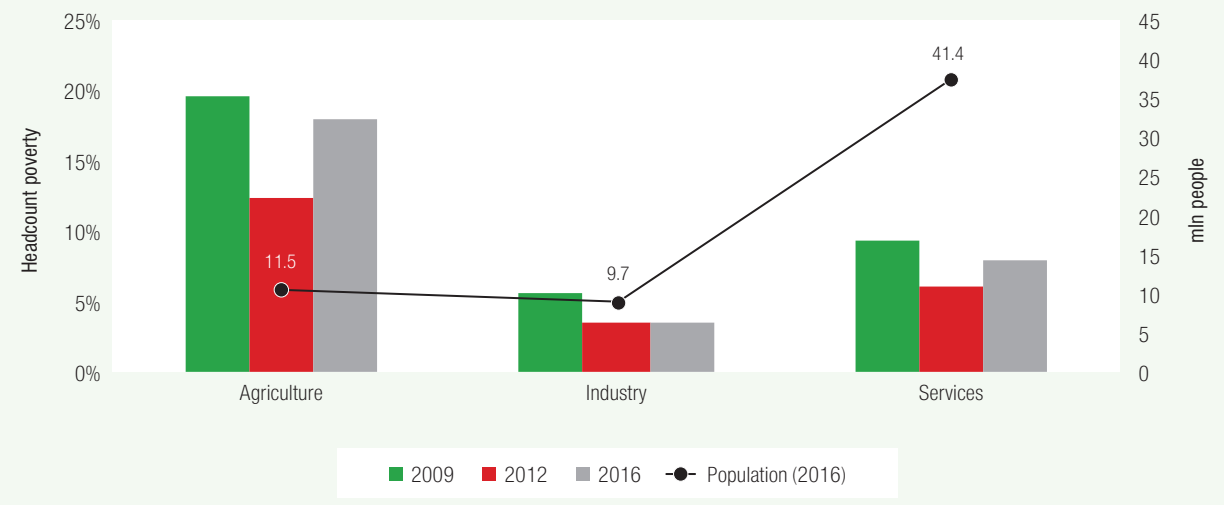
[20] Education is no guarantee of employment (see IEM Fall 2017 http://documents.worldbank.org/curated/en/347831520515722711/pdf/124020-WP-PUBLIC-P162048-Iran-IEM-Fall-2017-7Mar18-MM.pdf). Nonetheless, on average, richer households are better educated than poorer households.

FIGURE 54 • Headcount Poverty Rates at $5.5 2011 PPP Poverty Line by Head of Household Labor Force Status in 2009, 2012, and 2016



Source: Authors' calculation using HEIS 2009, 2012 and 2016.

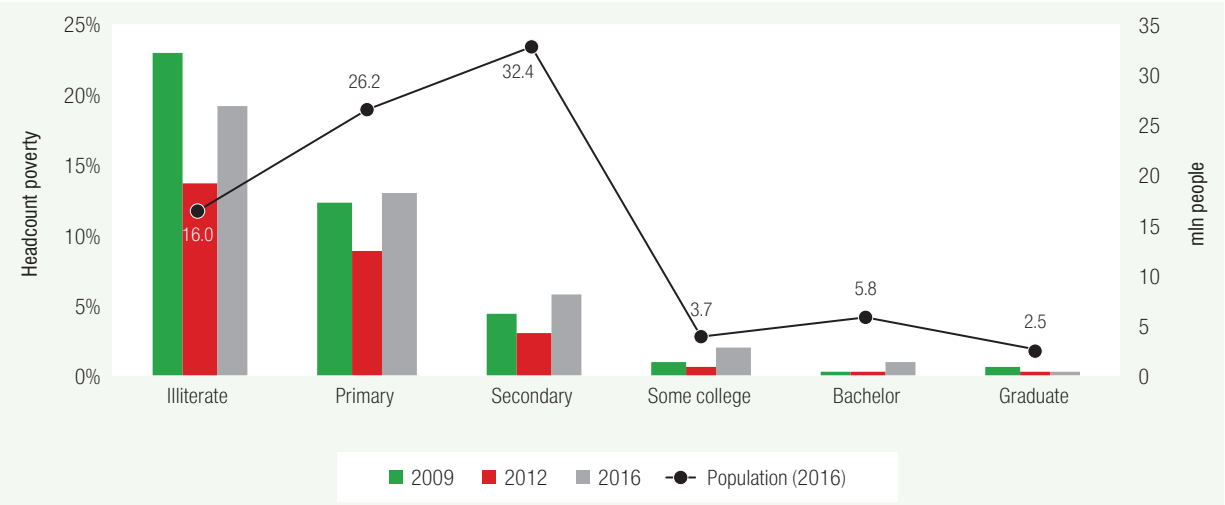
FIGURE 55 • Headcount Poverty Rates at $5.5 2011 PPP Poverty Line by Head of Household Employment Sector in 2009, 2012, and 2016



Source: Authors' calculation using HEIS 2009, 2012 and 2016.

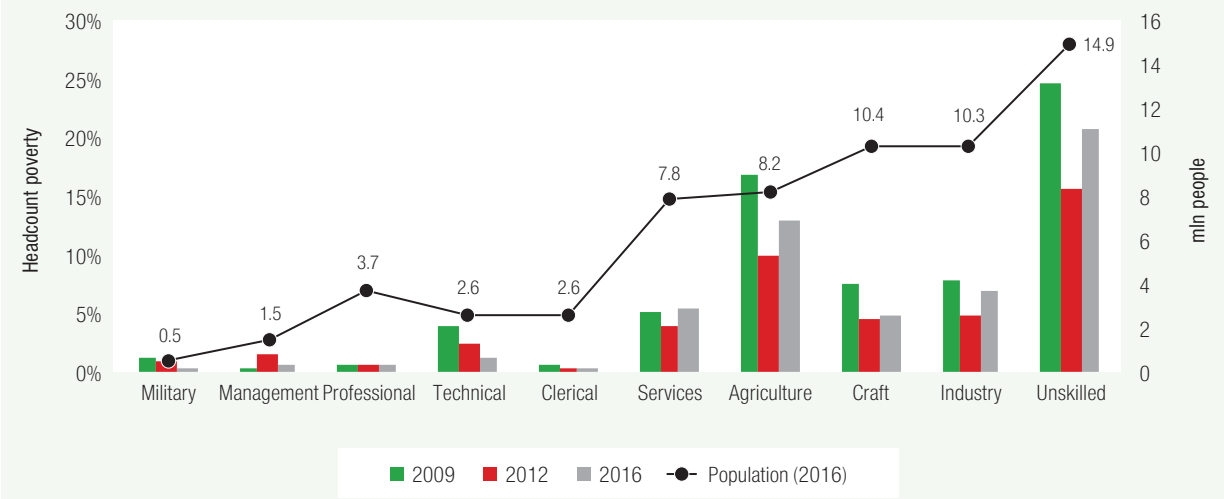
survey data demonstrates the gradual increase in enrollment in educational institutions for children aged 7–19 for all groups of population (Figure 58), regardless of expenditure levels. However, there is a substantial gap in enrollment between the poorest and richest 20 percent of population, as poorer children drop out of school over time. As shown in Figure 59, almost all children are enrolled in primary school (enrollment rates are near 100 percent for the richest and the poorest up until around ages 12–13 years). However, the gap in enrollment emerges after primary school age and widens sharply. Between ages 13–16 years, no children from the richest quintile drop out of school,

FIGURE 56 • Headcount Poverty Rates at $5.5 2011 PPP Poverty Line by Head of Household Education Level in 2009, 2012, and 2016



Source: Authors' calculation using HEIS 2009, 2012 and 2016.

FIGURE 57 • Headcount Poverty Rates at $5.5 2011 PPP Poverty Line by Head of Household Occupation Status in 2009, 2012, and 2016

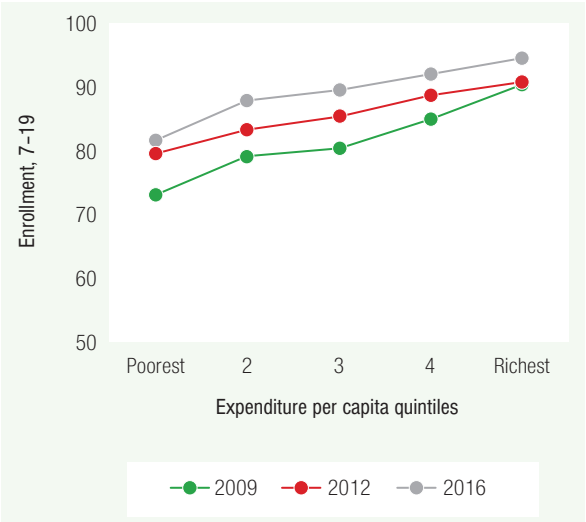


Source: Authors' calculation using HEIS 2009, 2012 and 2016.

but 30 percent of children from the poorest quintile do. By age 19, the enrollment gap has reached 46 percentage points. Understanding the underlying factors behind higher dropout rates of the poor children will require additional research.

Ultimately, improving labor market conditions while managing inflation will be key in having sustainable poverty reduction. Iran's performance in poverty and inequality reduction was remarkable until 2012. However, it was primarily driven by the

FIGURE 58 • Enrollment in Educational Institutions in 2009, 2012, and 2016 for Children Age 7-19 by Expenditure Per Capita Quintiles, %



Source: Authors' calculation using HEIS 2009, 2012 and 2016.

FIGURE 59 • Enrollment in Educational Institutions in 2016 for Children Age 7-19 by Age and Poorest and Richest Expenditure Per Capita Quintiles, %

Source: Authors' calculation using HEIS 2016.

universal cash transfer program, which was launched to protect the population from the negative impact of higher energy prices. While the program appears to have been very effective in mitigating the adverse impacts of the energy tariff reform, it cannot be the panacea for sustaining poverty reduction and boosting shared prosperity in the long-term. To the extent that improvements in labor market outcomes offer a more durable path to welfare improvement, the very meager contribution of the labor market in explaining poverty reduction in Iran is indicative of a strong need to improve labor market outcomes and access to productive job opportunities. A better understanding of the constraints to job creation, labor productivity, and private sector participation is needed and requires further research. Moreover, managing inflation will also be essential, not only to ensure the cash transfers maintain their value to the poor, but also to bolster the spending power of any improvements in labor income.

Better understanding and reducing regional welfare disparities is also important for successful poverty reduction strategies. Iran has pronounced gaps between rural and urban areas and between particular regions. Further analysis of regional disparities will help to understand whether disparities are driven by a concentration of people with more favorable characteristics or by specific geographic factors such as the quality of institutions, access to basic infrastructure, distance to markets and so forth. Knowing the answer may call for different policy actions.

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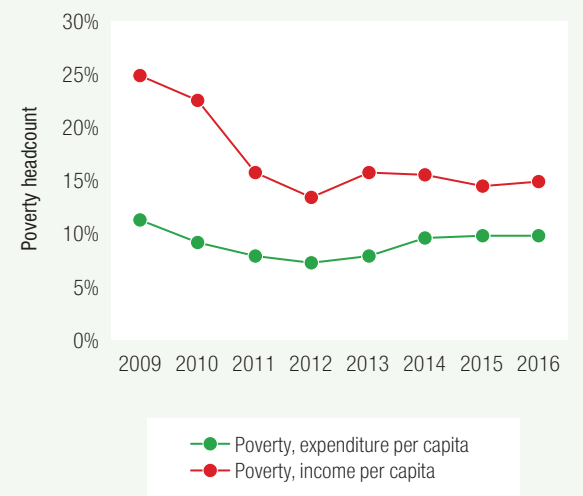
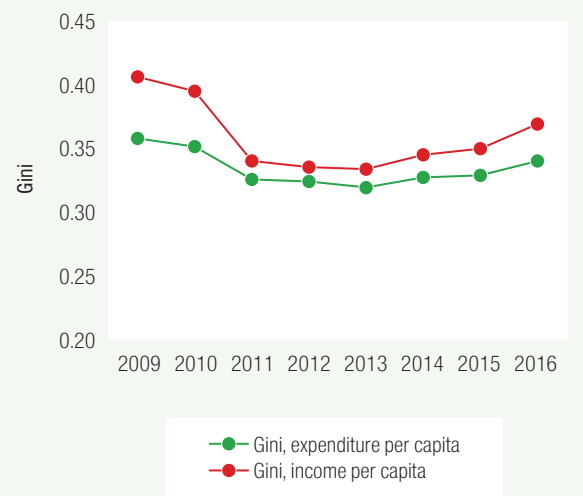
ANNEX

FIGURE A1 • Poverty Headcount Rates at $5.5 2011 PPP Poverty Line Using Expenditure and Income Per Capita Welfare Aggregates Across Years



Source: Authors' calculation using HEIS 2009–2016.

FIGURE A2 • Gini Index Line Using expenditure and Income Per capita Welfare Aggregates across Years



Source: Authors' calculation using HEIS 2009–2016.

Box A1. Measuring International Poverty Rates in Iran

Iran is one of the few Middle East and North Africa countries (MENA) collecting annual Household Expenditure and Income Survey (HEIS) of a very high quality. Collected series are also the longest one in the region. Data was collected since 1963 in rural areas and 1968 in urban areas. HEIS series were used to construct poverty estimates for this section. Selected period covers 2009-2016 years.

Measuring poverty requires two broad steps. The first step is to define an indicator to measure welfare or living standards. The second step requires setting a poverty line - the minimum welfare level below which a person is considered to be poor. Standard procedures were pursued in order to construct components of the welfare aggregate as well as price adjustment following established methodology in the field of poverty measurement (Deaton and Zaidi 2012; Haughton and Khandker 2014).

Using an international line helps to avoid arbitrariness and sensitivity of establishing a line in local currency units – a long process which is usually led by national authorities. The most widely used international poverty line is 1.90 USD (Ferreira et al. 2015). It was established by the World Bank as averages of the national poverty lines of the 15 poorest developing countries expressed in PPP terms to monitor global extreme poverty (Chen and Ravallion 2010). Higher international poverty lines can be used by countries to measure wellbeing if necessary. Extreme poverty is almost non-existent in Iran, so the $5.50 2011 PPP daily poverty line, also called upper middle-class line (Jolliffe and Prydz, 2016), is used in the special focus section on poverty.

The constructed welfare aggregate included different food and non-food expenditure-based components. Given that the HEIS survey collects very limited information on stocks of durables and information on their current prices, age or conditions is not available, estimating the annualized flow of consumption was not possible.

Therefore, the decision was to exclude purchases of durables from the welfare aggregate. Given the difficulty of distinguishing between health expenditures that increase utility and those considered a regrettable necessity, the decision was to drop health expenditure as a whole. Health insurance is included as it is clearly related to preventive care and as a result associated with higher utility and welfare. All technical details and robustness checks of these decisions are shown in Atamanov et al. (2016). Dropping or including expenditures on health and durables did not affect overall trends in poverty and inequality.

Having constructed the welfare aggregate, there is a need to make additional adjustments to facilitate ranking of individuals or households. One of the most important adjustments is spatial and inter-temporal deflation to account for temporal and spatial difference in prices faced by the population. The welfare aggregate was adjusted to within and across year inflation using weighted consumer prices index from Statistical Centre of Iran combining urban and rural prices. All welfare aggregates were expressed in 2011-year prices and transformed afterwards to 2011 PPP international dollars using ICP 2011 PPP exchange rates for household final consumption expenditure. ICP 2011 PPP for Iran is equal to 5001.363 Iranian rial per one international dollar.

In order to account for variation in prices across regions, food and rent, regional deflators have been constructed for urban and rural areas of all regions and used for spatial deflation. Food deflator is based on unit values obtained from each round of HEIS and rent deflator is estimated using predicted rents for a typical dwelling.

Households from poor areas with low prices become richer after spatial deflation, while households from rich metropolitan areas with high prices become poorer.

Overall, spatial deflation narrows the regional gap in poverty rates. The level of inequality, measured by the Gini coefficient, becomes lower after accounting for spatial differences in food and rent prices. As shown in Atamanov et al. (2016), spatial adjustment does not change the trends in poverty and inequality, but only shifts the levels.

Once welfare aggregates are adjusted for spatial and inter-temporal price variation, $5.50 2011 PPP daily poverty line can be universally applied for the whole population across all years. The advantage of this approach compared to the alternative of having multiple poverty lines is that all households can be easily ranked and compared to each other.

HEIS contains rich information on labor market indicators and income. Even though using consumption/expenditure data is preferable to measure poverty in developing countries, construction of income poverty estimates will allow an income decomposition which can check the role of each income component in changes in poverty and inequality.

The total income aggregate broadly consists of labor income, social assistance, transfers, pensions, property income (interests, capital, land, and rent) and income from products sold from home. Labor income includes net total income from wage and salaried jobs and self-employment during the last 12 months.

Social assistance is a stand-alone component covering only cash transfers. In order to do spatial adjustment a weighted spatial deflator was constructed by combining rent and food deflators. Shares of rent in the total welfare aggregate were used to construct a weighted deflator for each household.

Levels of poverty are different depending on whether income or expenditures are used. Income based poverty is constantly higher probably due to under-reporting as typically found in developing countries household budget surveys. However, the trends are very similar which is an important pre-requisite for conducting income poverty decomposition.

Detailed explanation of methodological choices made as well as all robustness tests are discussed in working paper by Atamanov, Mostafavi, Salehi-Isfahani and Vishwanath “Constructing robust poverty trends in the Islamic Republic of Iran: 2008-2014” accessible here https://openknowledge.worldbank.org/handle/10986/25152.

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