

IRAN POVERTY DIAGNOSTIC

REPORT NO: [185679]

# Poverty and Shared Prosperity

Poverty Global Practice

Middle East & North Africa

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**WORLD BANK GROUP**

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## EXECUTIVE SUMMARY

**This poverty diagnostic reviews welfare outcomes in the Islamic Republic of Iran between 2011 and 2020, with a focus on poverty and shared prosperity.** Iran is the only country in the Middle East and North Africa region (MENA) that collects high quality household budget survey data on an annual basis and makes them publicly available. Drawing from this data, this diagnostic will look at the trends, determinants, and drivers of poverty in Iran at the national, subnational, and household levels. Two further deep dives will be published in early 2024, one on the differential impact of the reimposition of sanctions and of COVID-19 on household welfare: and the second on the welfare implications of drought and water scarcity. This report is accompanied by an interactive [dashboard](#).<sup>1</sup>

**Over the past decade, Iran’s economy has suffered from a lost decade of economic growth.** On average, per-capita gross domestic product (GDP) contracted at an annual rate of 0.6 percent between 2011 and 2020. Despite efforts to broaden its tax base, the Iranian government has continued to rely heavily on oil as a source of revenue. Oil export proceeds are key determinants of the current account as well as public finances, and when oil prices drop the government must resort to deficit spending to make up the shortfall. On-again, off-again sanctions have also had a deleterious impact on the country’s GDP trajectory and welfare outcomes. This lack of growth has been compounded by inflation, eroding purchasing power.

**Iran’s population is aging and urbanizing rapidly.** Migrants are moving to urban areas in search of economic opportunities. Iranian families are shrinking, and the age of the median Iranian has increased. This means that Iran faces a narrowing window to leverage its “population dividend”.

**Employment has trended upward over the past decade, driven by structural transformation, but large disparities remain and were exacerbated by COVID-19.** Employment growth was generated by a shift out of agriculture into services and industry. An estimated 1 million women joined the labor force. Yet Iran’s labor market remains characterized by high unemployment, particularly among youth, and low female labor force participation. The pandemic wiped out recent gains in employment, with a disproportionate effect on women, including working mothers who took on most of the family caregiving responsibilities.

**Since the 1979 Revolution, Iran achieved remarkable progress in terms of poverty reduction, but in the past decade close to 10 million Iranians have fallen into poverty.** Between 2011 and 2020, the share of Iranians living below the international poverty line for upper-middle-income countries (UMIC), defined as US\$6.85 per day in 2017 purchasing power parity terms, increased from 20 percent to 28.1 percent. Not only did the number of poor Iranians increase, but so did their level of deprivation. Forty percent of Iranians are vulnerable to falling into poverty, in that their risk of becoming poor in the near future is greater than one in five—a 10 percentage-point increase from 2011.

**Iran’s increase in poverty between 2011 and 2020 reflects an underlying lack of economic growth as well as structural inequities.** If the growth in household consumption during 2014–17 had been shared equally, poverty would have fallen by an additional 2.7 percentage points. The households in the bottom 40 percent of the consumption distribution did not benefit from the rare periods of economic growth. Looking at consumption patterns, the poorest households suffered most during recessions and benefited least during periods of economic expansion. Households in the bottom percentile saw real consumption decrease by about 2 percent each year on average, compared to 1 percent for the richest households.

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<sup>1</sup> Results reported in the dashboard and this report are based on Iran’s Household Income and Expenditure Survey and the Labor Force Survey, collected annually by the Statistical Center of Iran and published publicly online.

**Fluctuations in earnings drove fluctuations in poverty levels, with social protection providing an important buffer during the latest crisis.** In terms of social protection, the rich rely on pensions while the poor rely on cash-transfers. The poorer deciles have had to rely more on wages and self-employment earnings for their income, as the value of social transfers has eroded. While the value of pensions is indexed to inflation, the value of cash transfers has declined over time. Without the top-up to cash transfers in late 2019, the poverty rate would likely have increased by a further 4.1 percentage points.

**Eroded by inflation, real wages and self-employed earnings have stayed essentially flat over the past decade for all but the top quintile.** Looking at income trends across sectors, income for white collar service sector jobs increased more during periods of expansion and decreased less during periods of contraction; the opposite happened for blue-collar workers. The increase in poverty has thus been driven by stagnant incomes in the economic sectors where the poorest tend to work.

**The poor are increasingly concentrated in rural areas.** Almost half of the rural population is poor. Poverty has increased across the board, but the rural–urban divide has widened. Even within rural areas, there are large disparities across sectors. Over half of agricultural laborers were poor in 2020, compared to 36 percent of those self-employed in agriculture and non-agricultural workers. The depth of poverty has also increased, as rural inhabitants have cut back proportionally more of their consumption in response to deteriorating economic conditions.

**Disparities have grown across the country, with poverty increasingly concentrated in the Southeast and Northwest regions.** The difference in poverty headcount between the Southeast region and the Tehran metro area has increased from 29 percentage points to 36 percentage points in the past decade.

**There is a suggestive link between climate change and increased poverty in Iran.** Dry spells have increased in frequency and severity over the past decade, which may have contributed to the observed increase in poverty. Overlaying drought risk with arable land reveals that rural areas are highly vulnerable to drought, particularly in the Northwest region. There is also a strong correlation between the increase in the poverty rate at the provincial level and the share of the labor force that works in agriculture. Climate Change may reinforce rural-urban migration trends, leaving behind those who can't afford to move.

**As poverty has increased, the profile of the poor has become more distinctive.** Poor households are larger and have a higher economic dependency ratio because they have more children. Female-headed households are more likely to be poor, and this likelihood has only increased over time. Almost half of female household heads have no education, limiting their income-earning potential. While educational outcomes have improved for everyone, the poor still have much lower education levels overall. The least educated have been the most vulnerable to the economic downturn.

**Access to basic services is almost universal in the country, excepts regarding access to modern sewage and the internet, where there is a large gap between rural and urban households.** Only 1 percent of rural households have access to modern sewage. The country has seen improvements in the availability of mobile phones and the internet, but half of rural inhabitants still lack access to the internet.

**There is scope to address the country's structural inequities.** The poverty-alleviating effects of the social protection programs are a testament to their effectiveness as a buffer against economic fluctuations. Helping farmers adapt to persistent drought and expanding opportunities for those seeking to transition out of agriculture will help ensure that the rural–urban gap does not widen further. Addressing gender disparities and bringing women into the labor force will also help address inequities and boost growth.

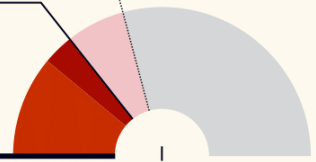
# A Challenging Decade

2011–2020

## IRAN POVERTY DIAGNOSTIC

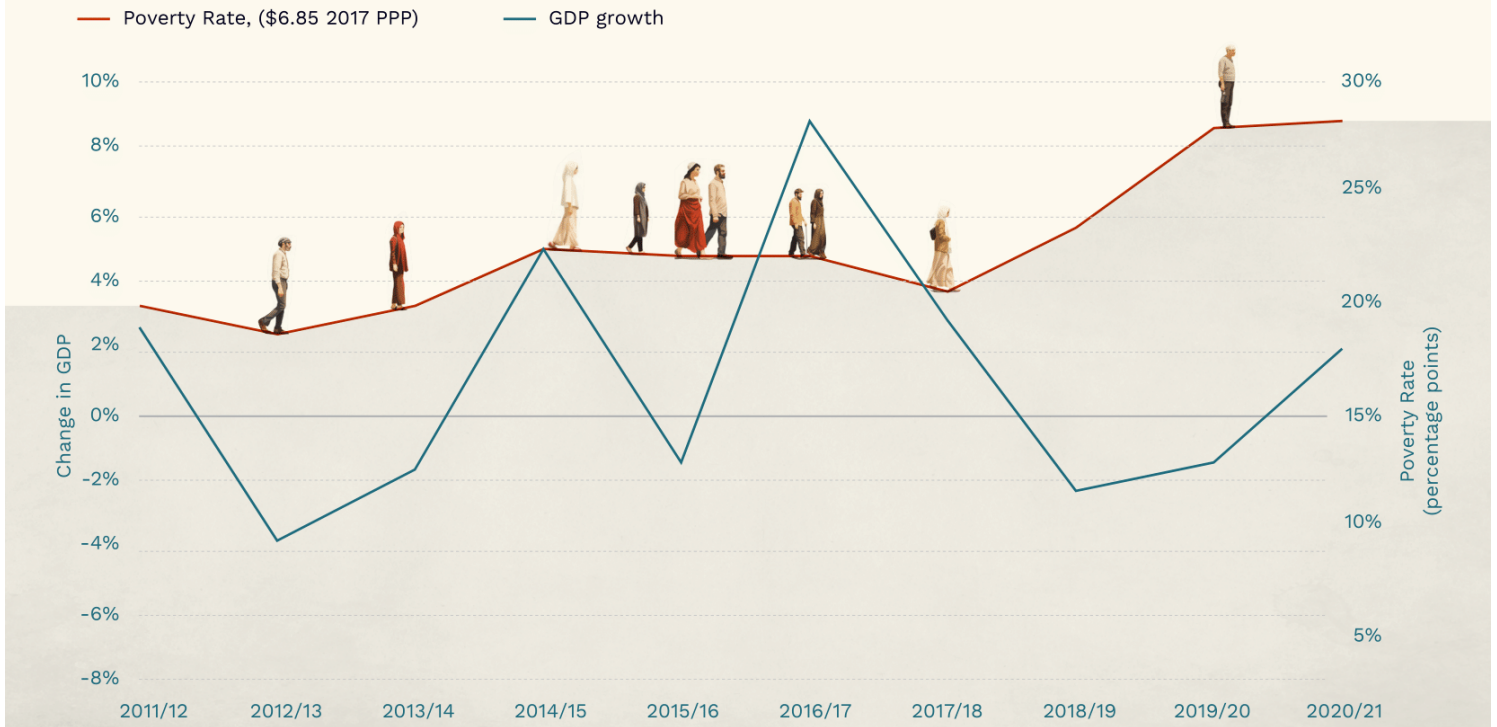
40% of Iranians are vulnerable to falling into poverty

Poverty increased from **20%** to **28.1%** between 2011 and 2020



## National poverty trends

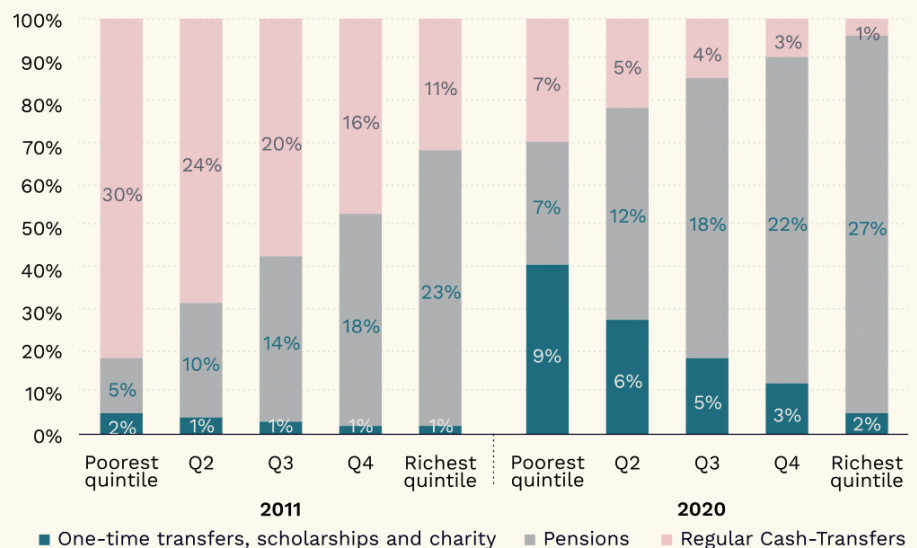
Iran experienced a lost decade of economic growth; when GDP contracted, poverty increased, and even when the economy expanded, only the richest household benefited and poverty levels remained flat.



## Social transfers as buffer

Richer households rely on pensions, whose value is indexed to price increases, while the poorest rely on cash-transfers, whose value has eroded with inflation.

A 'top-up' in 2019-20 benefiting the bottom three quintiles was reported as a one time transfer.

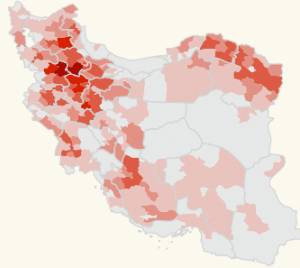
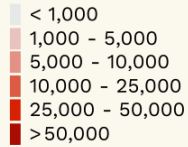


# Spatial disparities

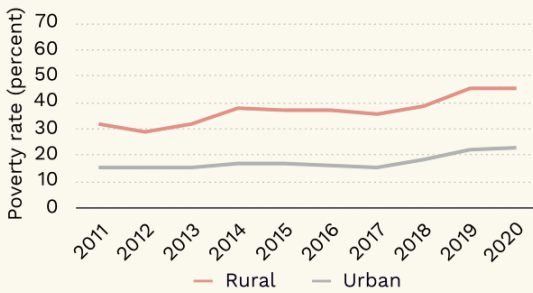
Differences in welfare between rural and urban areas and across regions are stark and have grown worse over time, exacerbated by increasingly severe drought.

## Drought hazard

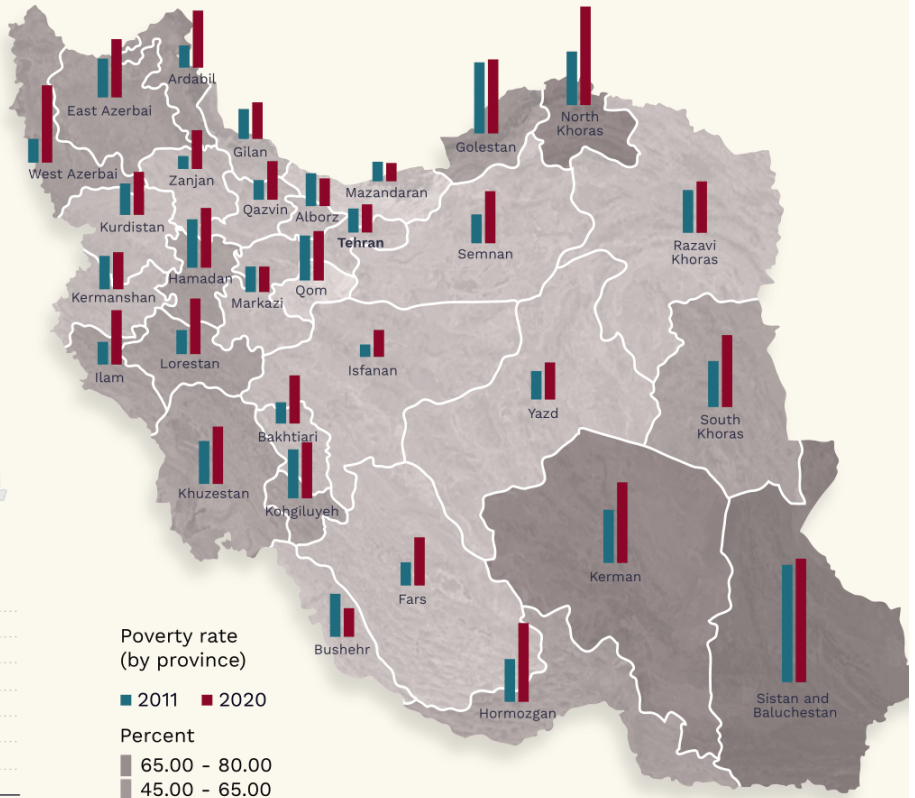
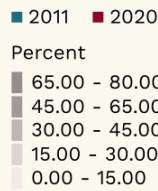
Expected exposure of cropland area (ha)



## Poverty rate (urban/rural)



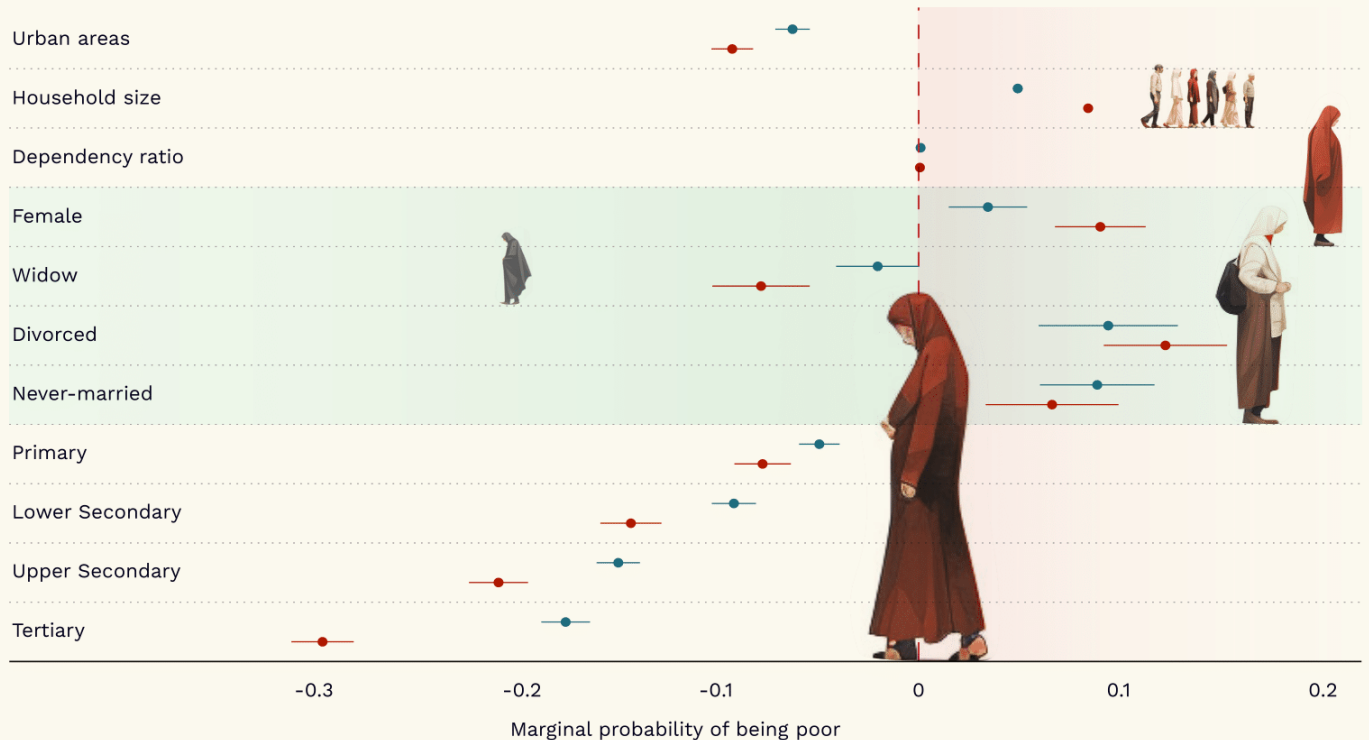
## Poverty rate (by province)



# Profile of the Poor

When looking at what changes the probability of being poor, we see that the poor have larger households, lower education levels, and are more likely to be headed by a woman, especially if she's divorced.

● 2011 ● 2020



**Note:** This figure depicts a linear probability model, which the dependent variable captures whether the household lives below the international poverty line of US\$6.85 per person per day in 2017 purchasing power parity terms. All explanatory variables were included in the model. Negative coefficients indicate that households with a given characteristic are less likely to be poor; positive coefficients indicate that households with those characteristics are more likely to be poor. Blue are coefficients for 2011, and red are coefficients for 2020.

## POVERTY TRENDS AND DRIVERS

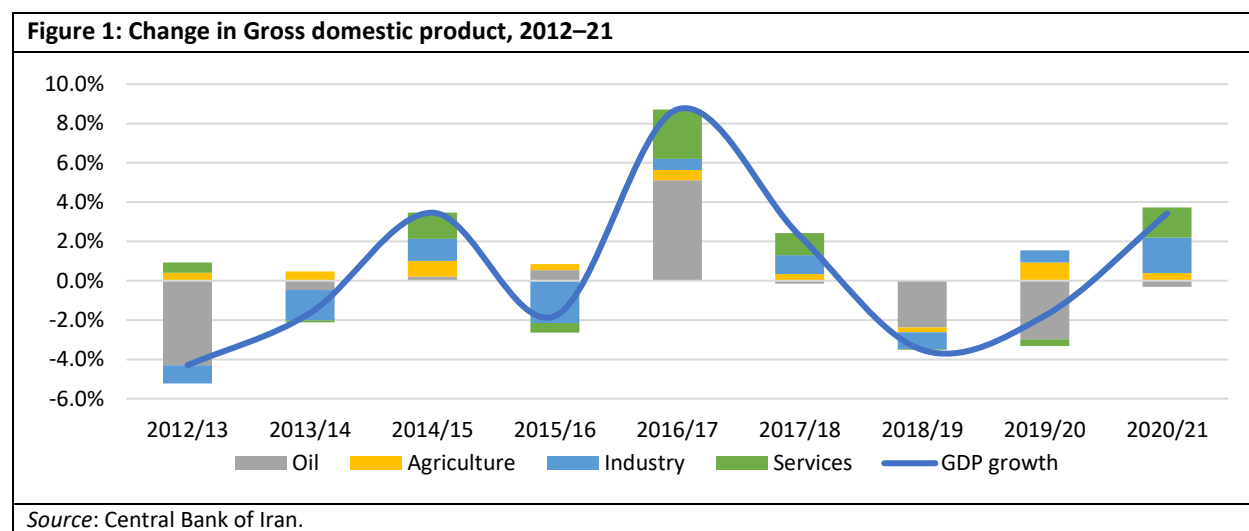
### Country Context

#### Data

Iran is the only country in the Middle East and North Africa region (MENA) that collects high quality household budget survey data on an annual basis and makes them publicly available. The *Household Expenditure and Income Survey (HEIS)* data collection started in 1963 in rural areas and in urban areas since 1968. Raw data from 1984 onwards are available for download on the website of Iran's statistical agency. Iran also has an annual *Labor Force Survey (LFS)* with data available since 2010. The HEIS and LFS are nationally representative surveys stratified at the province level and by urban and rural areas. The households in each sample are randomly divided into 12 groups of roughly equal size, each group interviewed in a different month of the Persian year.<sup>2</sup> The household survey covers a variety of information on household demographics, facilities, and income sources, together with a detailed questionnaire on expenditure items. The labor survey is used for labor force statistics. See Amendola et al (2023) for details on the construction of the consumption aggregate and estimation of poverty trends.

#### Macroeconomic trends

Over the past decade, Iran's economy has suffered from volatile growth on a negative trajectory. Per-capita GDP contracted by 0.6 percent per year over the past decade. The trajectory of Iran's heavily oil-dependent economy between 2012 and 2021 is distinguished by high volatility (Figure 1). Petroleum exports accounted for 55 percent of Iran's total exports during 2010–21 (Organization of Petroleum Exporting States). Fluctuations in the international price of oil, combined with the effect of sanctions, have contributed to significant economic fluctuation (See Box 1 for a summary of the literature). The lifting of economic sanctions in 2015 created new opportunities for international trade and investment, boosting the country's economy. The subsequent reimposition of sanctions in 2018 reversed many of these gains. Despite some efforts at diversification, the continued reliance on revenue from oil and gas exports has hampered Iran's economic progress (World Bank 2022b, 2023a). Beyond the oil sector, services are particularly pro-cyclical, while manufacturing is hard hit during economic contractions.

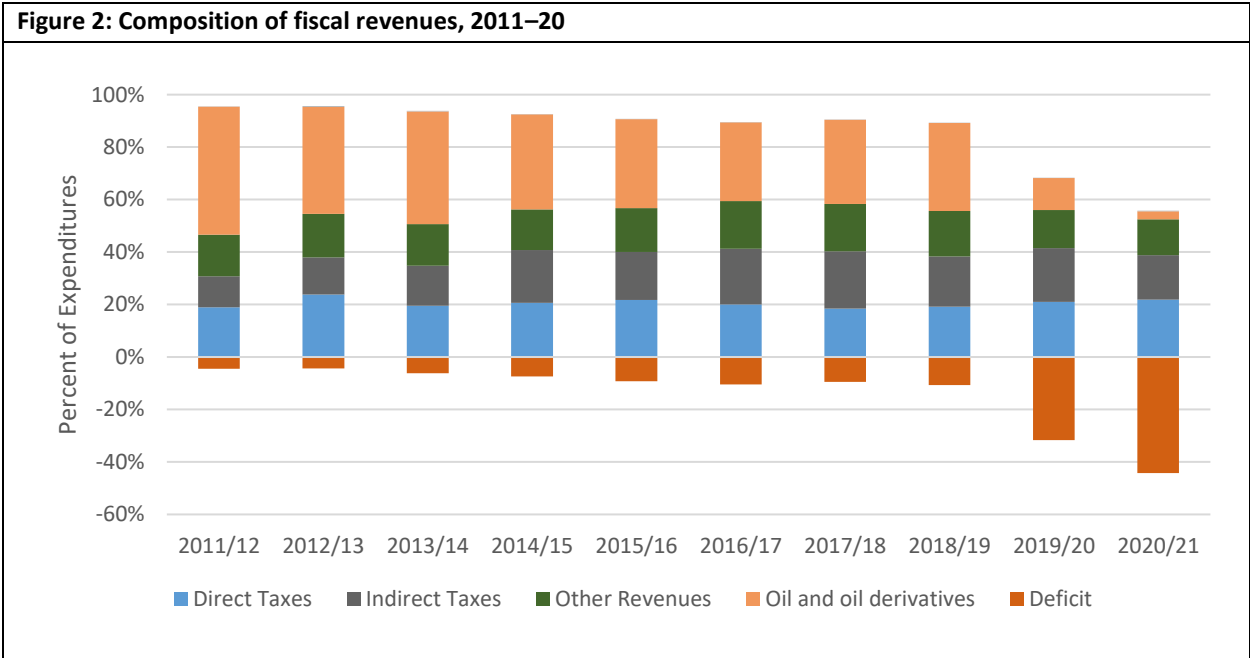


<sup>2</sup> The Persian Calendar begins around March 21<sup>st</sup> of each Gregorian year and ends around March 20<sup>th</sup> of the subsequent year



**Despite efforts to broaden its tax base, the Iranian government has continued to rely heavily on oil as a source of revenue.** Oil export proceeds are key determinants of the current account as well as public finances (World Bank 2022a). While oil constituted over half of revenues in 2011–12, the government has slowly sought to increase its tax take and reduce its reliance on oil (Figure 2). Yet, with the combination of sanctions and a drop in oil prices in late 2018, compounded by the impact of COVID-19, the sudden drop in revenue meant that the government had to resort to deficit spending to make up the shortfall. As a percent of GDP, revenues dropped from 16 percent of GDP in 2011 to 7 percent in 2020 (IMF 2021).

**Figure 2: Composition of fiscal revenues, 2011–20**



Source: Central Bank of Iran.

**Box 1: Sanctions have had a significant economic impact in Iran**

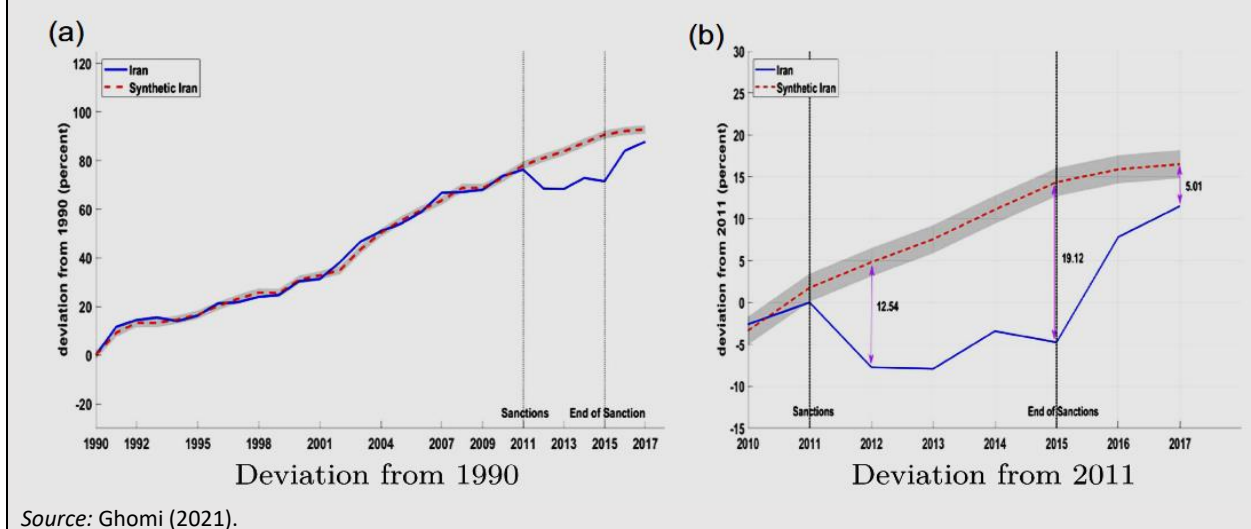
Successive rounds of sanctions imposed on Iran over the past decade have caused notable declines in Iran's GDP, oil production and exports.<sup>3</sup>

Studies using synthetic control methods confirm that sanctions have negatively affected Iran’s economy compared to a no-sanctions scenario (Gharehgozli 2017, Ghomi 2021). Using this method, the authors estimate that GDP growth was 12 to 19 percentage points lower than it would have been without sanctions (Figure B1).

The sanctions also had distributional implications for welfare. A study using a synthetic panel method finds that rural households, households belonging to low- and middle-income groups, and those headed by old and unemployed persons had the highest likelihood of moving into poverty between 2011–12 and 2014–15 (Ghomi 2021). By contrast, households with members employed in the public sector and those with higher levels of education were better insulated. An updated version of this analysis, using panel data from 2018–19 and 2019–20, will be conducted as part of the first deep dive in Part 2 of this report.

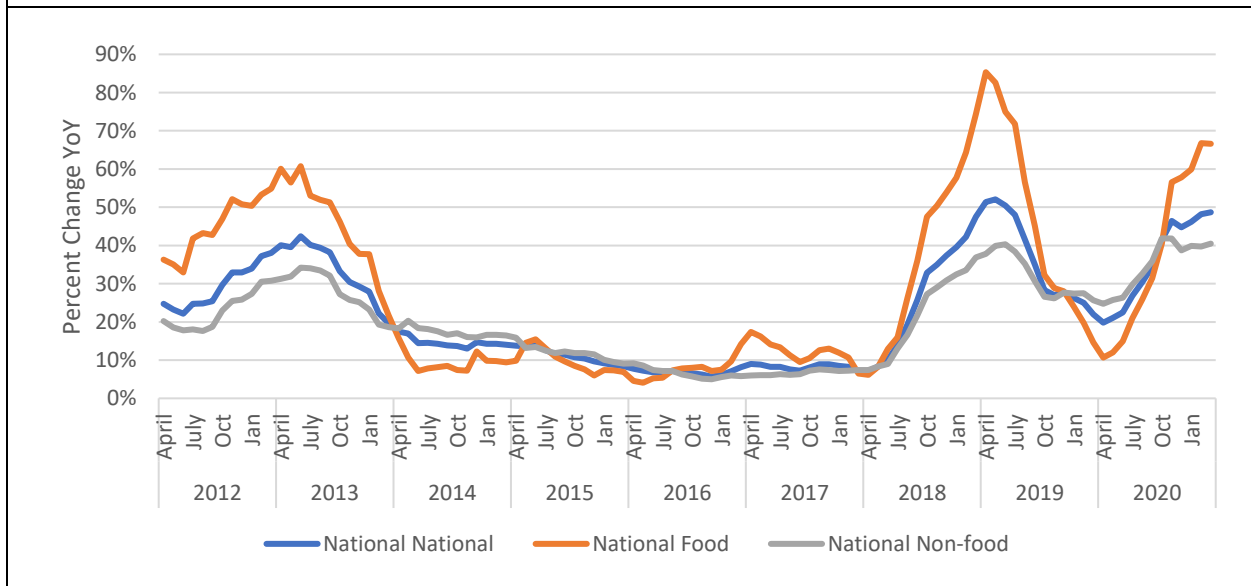
<sup>3</sup> For a detailed overview of the economic impact of sanctions, see Rodríguez (2023).

**Figure B1: Real GDP path for Iran (solid line) and under a theoretical no-sanctions scenario (dashed line)**



The lack of growth has been compounded by high inflation, which has contributed to the erosion of purchasing power in real terms. High and volatile inflation has been an endemic economic and social issue in Iran. A working paper prepared by the International Monetary Fund (IMF) concludes that, in Iran, loose monetary policy has driven long-term inflation, while currency depreciation, fiscal deficits, and sanctions (proxied by oil exports) have driven inflation both in the short and the long term (Ture and Khazaei 2022). Price levels, particularly for food, nearly doubled in 2012–13 and again in 2018–19, with a more recent spike due to COVID-19 (Figure 3). Food price increases tend to disproportionately affect the poorest; the bottom quintile of Iranian households in terms of consumption spent 45 percent of their budget on food in 2020-21, while the top quintile spent 26 percent.

**Figure 3: Consumer Price Index, 2011–20**

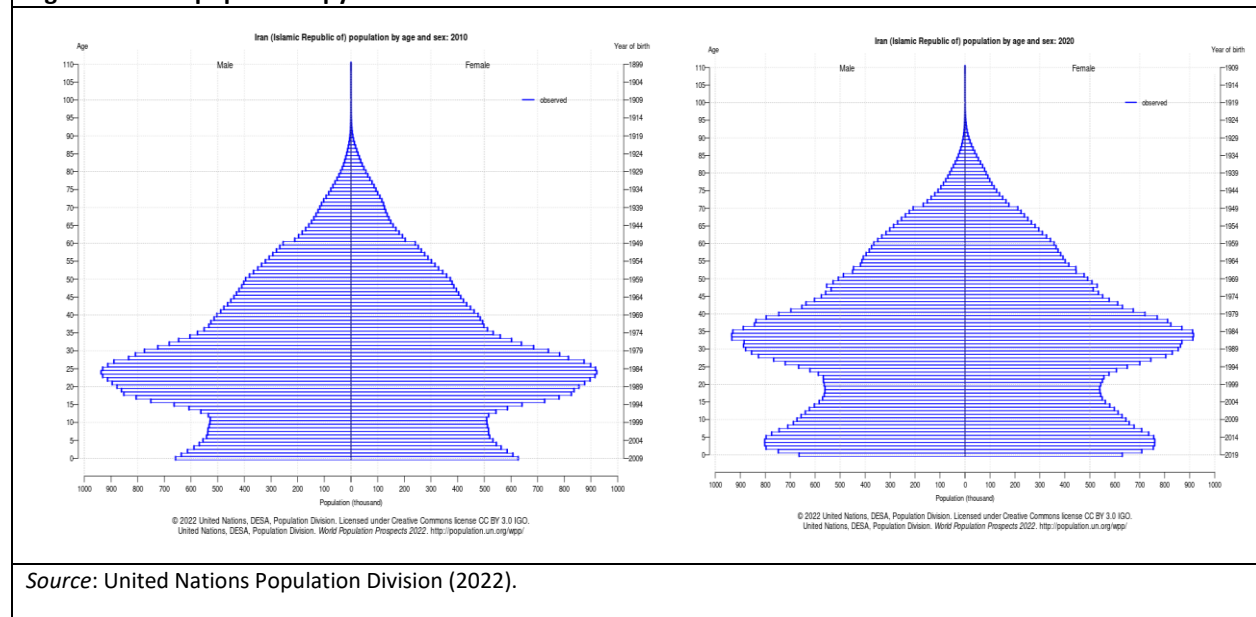


Source: Central Bank of Iran.

## Demography and the labor market

**Iran's population is aging and urbanizing rapidly.** The urbanization rate has increased from 71 percent in 2011 to 75.5 percent in 2020. Each year, about 1 percent of working-age adults report moving to a new city, indicating a certain level of economic mobility. These internal migrants are often in search of economic opportunities and tend to be better educated than the typical urban resident. As they move to cities, Iranian families have gotten smaller; within the last decade, the average household size in the country decreased from 3.8 to 3.4, while the fertility rate dropped slightly, from 1.8 children per woman to 1.7 (United Nations Population Division 2022). At the same time, the typical Iranian has gotten older; the median age has increased from 29 in 2010 to 34 in 2020. A large cohort of young adults born in the 1980s is having children, accounting for the “hourglass” shape of the population pyramid (Figure 4). As Iranians continue to have fewer children, the country faces a shrinking window to leverage its “population dividend” before the largest cohort ages out of the labor force.<sup>4</sup> While net migration over the past decade has been positive due to an influx of Afghan refugees, this hasn't reversed long term trends.

**Figure 4: Iran's population pyramid**

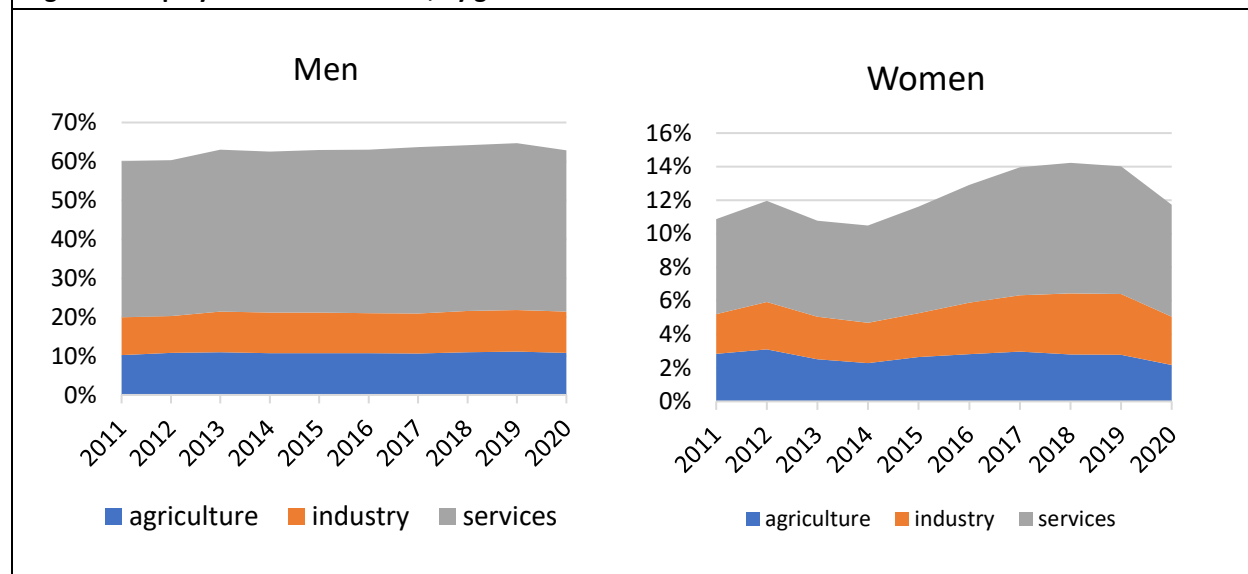


**Employment has been on an upward trend over the past decade, driven by structural transformation, but many of these gains were reversed by COVID-19.** The employment rate, or the share of working-age adults who are employed, increased from 35.5 percent in 2011 to 39.1 percent in 2018. Two-thirds of workers are employed in the services sector, and one-fifth work in industry, proportions that have increased over time (Figure 5). The increase in the employment rate was driven mostly by an increase in female labor force participation, with more women working in services. The sectoral distribution of men remained stable. While only about 11 percent of women were employed in 2011, this proportion increased to 14 percent in 2018, which translates to about a million more women finding jobs. Yet the reimposition of sanctions and the onset of COVID-19 wiped out many of those gains. In Iran, the COVID-19 crisis led to a drop in labor force participation rather than an increase in unemployment, as many

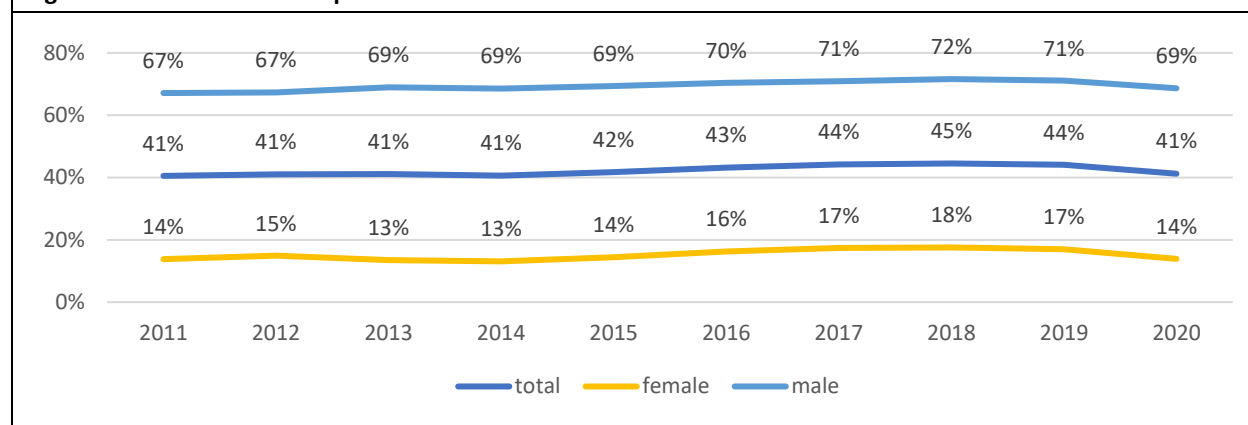
<sup>4</sup> A population dividend is when, due to falling fertility and reduced child mortality, a large number of productive adults support a proportionally small number of children and pensioners, allowing for rapid economic growth.

people gave up looking for jobs (Figure 6). Since the start of the pandemic, the working-age population increased by 1.4 million while the active population declined by 1.3 million (World Bank 2022a).

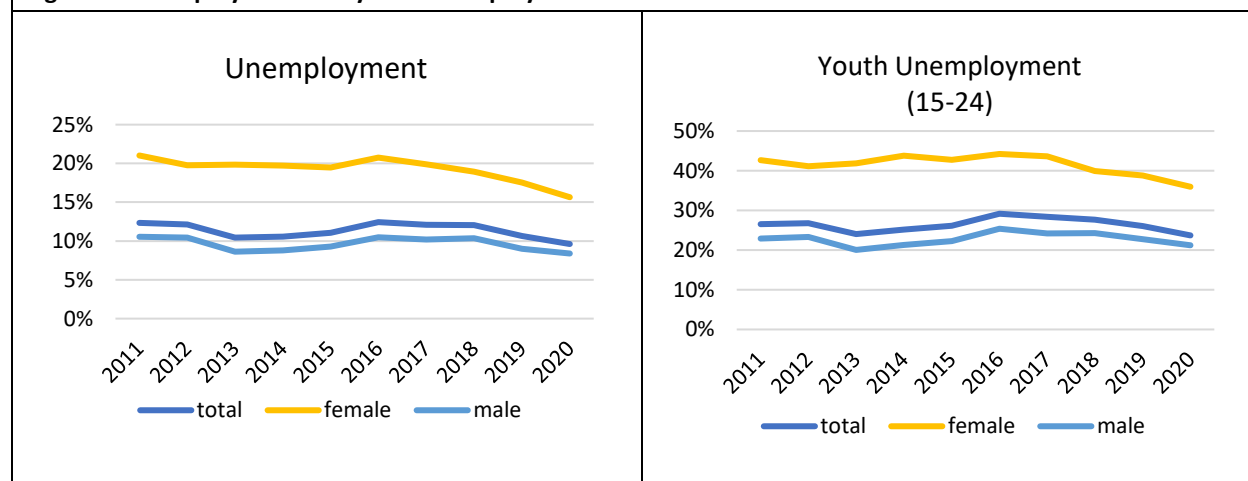
**Figure 5: Employment across sectors, by gender**



**Figure 6: Labor Force Participation**



**Figure 7: Unemployment and youth unemployment**



Source: World Bank staff calculations based on Labor Force Survey, 2011–20.

**Iran's labor market is characterized by high unemployment, particularly among youth, and low female labor force participation.** Unemployment has remained structurally above 10 percent of the labor force and above 25 percent among economically active youth (Figure 7). While Iran has made tremendous progress in eliminating gender gaps in education,<sup>5</sup> labor force participation among women remains far below that of men. Not only are women less likely to join the workforce, but when they do, their unemployment rate is twice that of men, reflecting the many constraints faced by Iranian women. The World Bank's latest *Women, Business, and the Law* survey gave Iran a score of 31.3 out of 100, below the regional average of 53 (World Bank 2023b). This is due to a plethora of legal and social restrictions, including on freedom of movement, laws affecting women's ability to work or start a business, and constraints related to marriage. Moreover, the pandemic had a disproportionate effect on women, including working mothers who took on the majority of family caregiving responsibilities during school and childcare closures, switching from paid labor to unpaid labor (Box 2). It is particularly concerning that many young women have given up on the job search and left the labor force.

**Box 2: The disproportionate impact of COVID-19 on female employment in Iran**

Iran was among the world's early epicenters of the pandemic and the worst-hit country in the Middle East. COVID-19 has claimed over 133,000 lives and affected close to 7 million people out of a population of 85 million. The first COVID-19 case was recorded as early as February 19, 2020, and on March 4, the authorities announced that the virus had spread to nearly every province. Lockdown measures put in place by the end of March included travel bans and the closure of economic activities, religious sites (including mosques), and educational institutions at all grade levels. Starting at the end of April, restrictions began to ease, albeit at different rates depending on the local evolution of the pandemic.<sup>6</sup>

Approximately 1 million jobs were lost during the first year of the pandemic. The decline in employment did not translate into a higher level of unemployment, but rather into a decline in labor force participation as people stopped looking for jobs. Between 2019–20 and 2020–21, labor force participation declined by 3 percentage points. Informal sector workers were among the most heavily affected by the pandemic.<sup>7</sup> While the informal sector accounted for 42 percent of employment in 2019–20, 62 percent of the jobs lost in 2020–21 were considered informal.

Iranian women were affected the most by the labor market impacts of the pandemic. Two out of three jobs lost in Iran between 2019–20 and 2020–21 were previously held by women. Iranian women were more likely than Iranian men to withdraw from the labor force, either after losing their jobs or by giving up their search for a job. While the bulk of job losses for both male and female workers was concentrated in the informal sector, the gendered impact of the pandemic was particularly evident among salaried workers in the private sector, suggesting increasing precarity (Figure B2).

Even when controlling for other factors, Iranian women who were working in 2019–20 were less likely than men to have retained their jobs. After controlling for individual and job characteristics, regression results indicate that, compared to men, Iranian women were significantly less likely to have retained their jobs one year into the crisis

<sup>5</sup> Beginning in the mid-1990s, women began to outnumber men 2:1 in universities by receiving higher scores in entrance exams. This ratio led Iran's Majles (the Iranian parliament, also known as the Islamic Consultative Assembly) to implement a 60:40 affirmative quota for men, and quite a few schools began rejecting women in certain disciplines—some in science and engineering. Despite these actions, according to 2016 data from the United Nations Educational, Scientific, and Cultural Organization (UNESCO), females outnumber males by a significant margin at institutions of higher learning in science, technology, engineering, and mathematics (STEM) fields. In fact, Iran posts one of the highest absolute numbers of female STEM students globally. Women also account for a considerable share of students in medicine (Chamlou 2016).

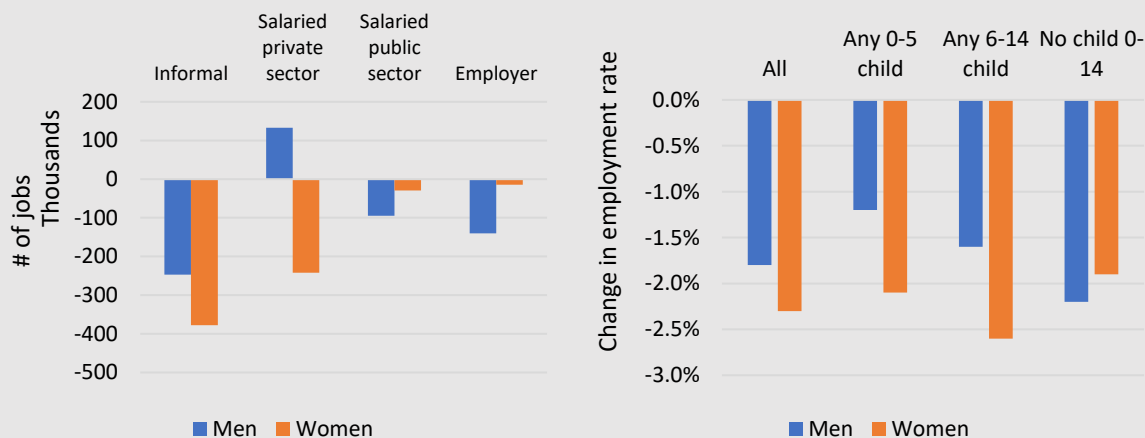
<sup>6</sup> Starting on April 26, 2020, restrictions related to COVID-19 were implemented depending on the number of cases recorded at the regional level. Regions, provinces, and counties were classified according to a three-tier system (red, yellow, white) depending on the local number of COVID-19 infections and deaths.

<sup>7</sup> In this analysis, the definition of informal sector encompasses self-employment in agriculture and non-agriculture sectors, contributing family workers, and unpaid apprentices.

(World Bank 2023c). On average, women who were employed in the informal sector had a 32 percentage-point lower probability of remaining employed during the first year of the pandemic compared to men. The corresponding gap is the lowest (5 percentage points) among women working in the public sector. Among salaried workers in the private sector, this gender gap in job losses is as high as 26 percentage points.<sup>8</sup>

Increased family care responsibilities during the first year of the pandemic contributed to the deterioration of Iranian women’s labor market outcomes. Changes in family responsibilities due to COVID-related school closures played a significant role in determining employment losses among women. The gender gap in job losses is highest among individuals with children in the 0–5 age group and narrows significantly among individuals with no children below the age of 14. Childcare responsibilities have also played an important role in reducing female labor force participation compared to men. Controlling for individual characteristics,<sup>9</sup> the impact of the pandemic on the gender gap in labor force participation was the strongest for individuals with young children in the 0–5 age group, whereas the gap disappeared when the sample was restricted to men and women without any children below the age of 14.

**Figure B2: Change in employment between 2019–20 and 2020–21 across sectors and family composition, by gender**



Source: World Bank calculations based on the Labor Force Survey (2019-20).

<sup>8</sup> Findings hold when controlling for differences in the type of employment. Descriptive analysis further reveals that women working as private sector employees tend to have shorter job tenure compared to their male counterparts, and they are less likely to be employed in micro businesses.

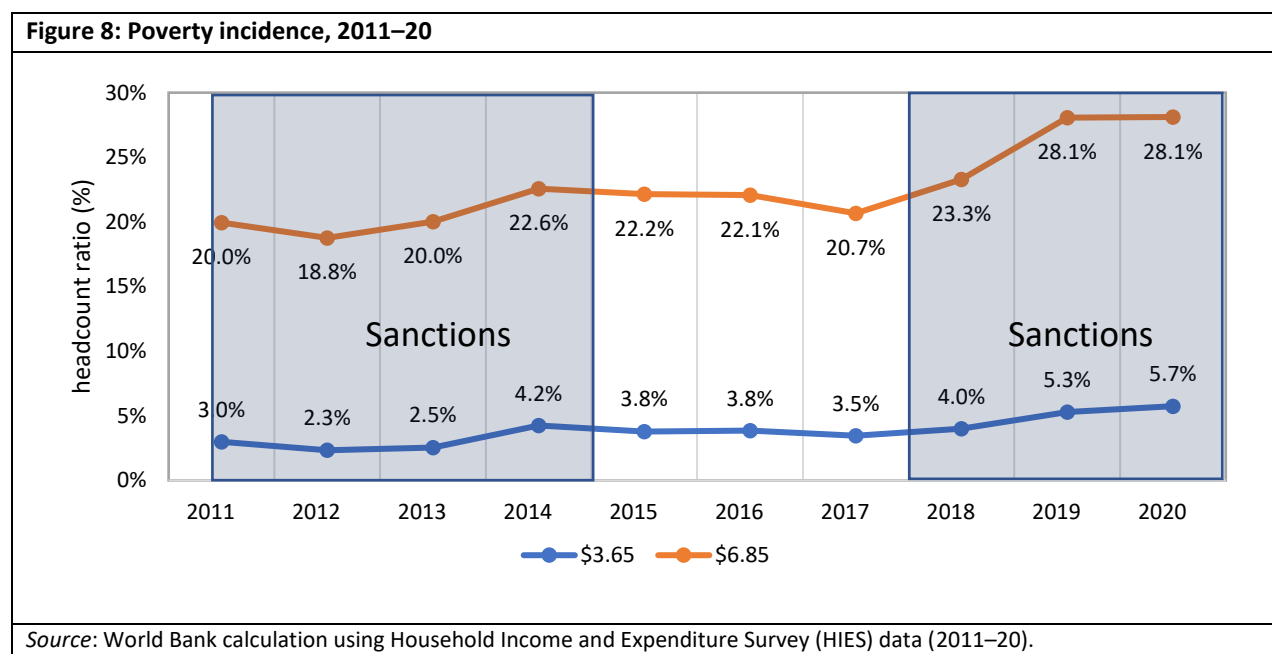
<sup>9</sup> Controls included in regression analysis are age, age squared, education, marital status as well as season, urban and province dummies.

## National Poverty Trends

### Increase in poverty

**Over the three decades up to 2010, Iran has achieved remarkable progress in terms of poverty reduction and human development.** After an acute economic crisis following the Islamic Revolution (1979) and the Iran–Iraq war (1980–88) came a sustained decline in poverty, from around 40 percent in the late 1980s to around 20 percent in the early 2000s (Salehi-Isfahani 2009). Progress in poverty reduction has been accompanied by a remarkable advancement in human development outcomes and access to services. Reflecting a strong emphasis on rural development in the post-revolution years, access to services increased dramatically. Similarly, there has been an impressive expansion in educational opportunities over recent decades, to the benefit of traditionally disadvantaged groups, such as rural residents and women.<sup>10</sup> Yet this strong social contract has eroded over time.

**Between 2011 and 2020, the share of Iranians living below the international poverty line increased from 20 percent to 28.1 percent** (measured at US\$6.85 per day in 2017 purchasing power parity terms).<sup>11</sup> This corresponds to 9.5 million people falling into poverty. Poverty dynamics over the period can be analyzed by distinguishing three broadly distinct phases (Figure 8). An initial period of moderate increases in poverty (2011–14), a phase of slight poverty decline (2014–17), and a time of sustained increases in poverty (2017–20). These periods are broadly aligned with the cycle of sanctions imposed, relaxed, and reimposed, though the drivers of poverty are far more complex. Internationally, Iran is one of the worst performers among its peers. While in 2011 Iran was the eighth least poor country among 25 upper middle income countries, by 2020 it had fallen to 17th place (Box 3).



<sup>10</sup> Women born in the 1940s had, on average, less than half the education of men, whereas those born after the revolution (1980–84) had, on average, 0.3 years more schooling than men. Similarly, rural individuals born in the 1940s attained, on average, about 10 percent of the schooling of urban individuals, compared to 80 percent for the 1980–84 cohort. (Salehi-Isfahani 2005).

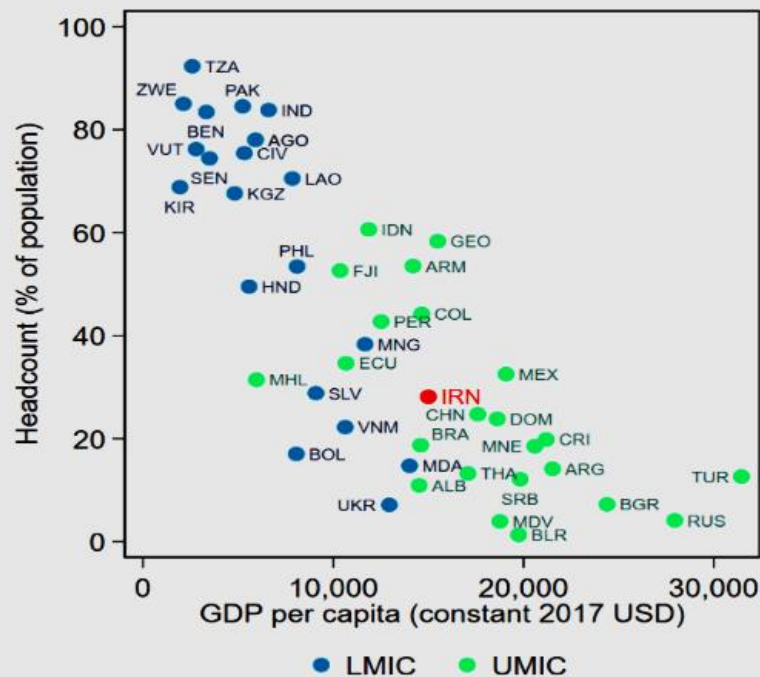
<sup>11</sup> This report does not seek to replicate a national poverty line. Unless otherwise noted, all analysis refers to the international upper-middle-income poverty line of US\$6.85 per day in 2017 purchasing power parity terms. As reported in state media, Iran’s most recently reported national poverty line equivalent to about \$500 per month for a family of 4, or \$4.11 per person per day.

### Box 3: Benchmark comparison with economic peers

Compared to UMICs, Iran has performed poorly on poverty reduction in the last decade. In 2011, Iran was the eighth least poor country among 25 UMICs, with a poverty rate comparable to that of Thailand and Serbia. By 2020, it had fallen to 17<sup>th</sup> place, with a poverty headcount higher than that of countries with similar GDP per capita, such as Brazil or Albania.

In 2020, Iran was reclassified from UMIC to lower-middle-income country (LMIC). This change followed an update in the country's per-capita gross national income to better account for the multiple exchange rates in effect.<sup>12</sup> Overall, however, despite poor performance over the past decade, Iran's poverty rate at the international UMIC poverty line remains consistent with that of a UMIC (Figure B3).

**Figure B3: Comparative poverty incidence (at US\$6.85 per day in 2017 purchasing power parity) and per-capita GDP**



Source: World Bank World Development Indicators, 2020 or most recent year available.

**Not only did the number of poor Iranians increase between 2011 and 2020, but so did their level of deprivation.** The depth of poverty increased (Table 1),<sup>13</sup> indicating that, while in 2011 an Iranian living in poverty would have required an average transfer of 5.2 percent of their consumption to move above the poverty line, in 2020, the corresponding transfer would have increased by more than 60 percent in real terms to 8.2 percent of consumption. Similarly worrying has been the increase in the severity of poverty, indicating that the deterioration in welfare was particularly severe for the poorest of the poor.<sup>14</sup>

<sup>12</sup> See <https://blogs.worldbank.org/opendata/new-world-bank-country-classifications-income-level-2021-2022>

<sup>13</sup> Poverty depth indicates the average welfare shortfall among the poor, expressed as a percentage of the poverty line.

<sup>14</sup> Poverty severity indicates the average of individual poverty gaps weighted by the size of those gaps.

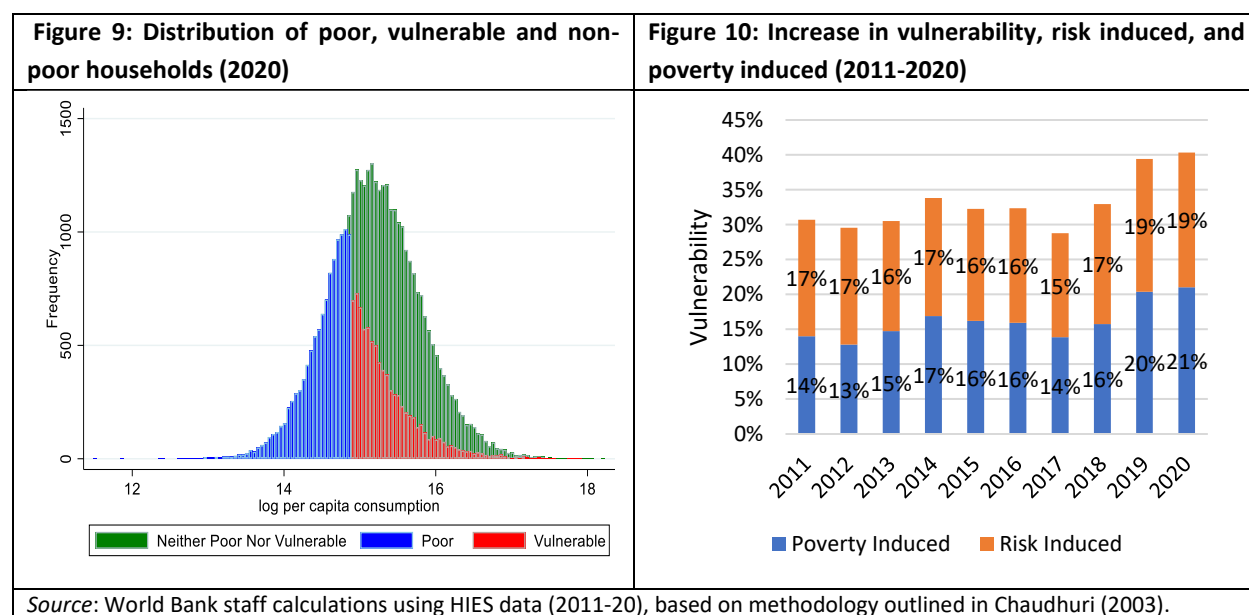


**Table 1: Trends in poverty headcount, depth, and severity, 2011–20 (US\$6.85 per day in 2017 PPP)**

Year	Poverty Rate (Headcount)	Depth (Poverty Gap)	Severity (Squared Poverty Gap)
2011	20.0%	5.2%	2.0%
2012	18.8%	4.6%	1.7%
2013	20.0%	4.9%	1.8%
2014	22.6%	6.2%	2.5%
2015	22.2%	5.9%	2.3%
2016	22.1%	5.9%	2.4%
2017	20.7%	5.5%	2.2%
2018	23.3%	6.3%	2.6%
2019	28.1%	8.0%	3.3%
2020	28.1%	8.2%	3.4%

Source: World Bank calculation using HIES data (2011–20).

**The vulnerability of Iranian households also increased.** 40 percent of Iranians are vulnerable to falling into poverty, in that they have a greater than 50 percent risk of becoming poor in the next two years (Figure 9). Female-headed households, households in rural areas, and larger households with a higher dependency ratio are all more vulnerable. This represents a 10 percentage points increase from 2011 (Figure 10). Vulnerability accounts for both a household’s current consumption and the expected variance in outcomes based on observed household characteristics.<sup>15</sup> About half of these households have an expected consumption level below the poverty line (poverty induced), while the other are vulnerable because of the increased uncertainty in their welfare outcomes (risk induced). This highlights the importance of a strong social safety net to act as buffer against shocks.



<sup>15</sup> Vulnerability calculations use household explanatory variables to predict the mean and variance of each household’s consumption aggregate. Based on these estimates, we posit that a household is vulnerable if the probability that its consumption level will be lower than the poverty line is greater than 29 percent. For a detailed methodology, see Chaudhuri (2003) and Skoufias & Baez (2021).

## Erratic and non-inclusive growth

**The increase in poverty in Iran reflects an underlying lack of economic growth.** The estimated growth elasticity of poverty in Iran between 2011 and 2020 is  $-1.56$ , meaning that every 1 percent increase in per-capita GDP decreases poverty by 1.56 percent. Holding growth elasticity constant, had per-capita GDP grown at a steady rate of 0.6 percent per year instead of contracting, poverty could have declined by 7.9 percentage points over the past decade.<sup>16</sup> Growth elasticity was not constant, however. The growth elasticity of poverty relative to GDP was at its lowest between 2014 and 2017 (at  $-0.42$  percent), when per-capita GDP was growing at an annual rate of 1.5 percent (Table 2). This is partially because despite significant GDP growth, driven by a lifting of sanctions, per capita private consumption only increased by 0.6 percent annually in this period.

**Table 2: Growth elasticity of poverty, 2011–20**

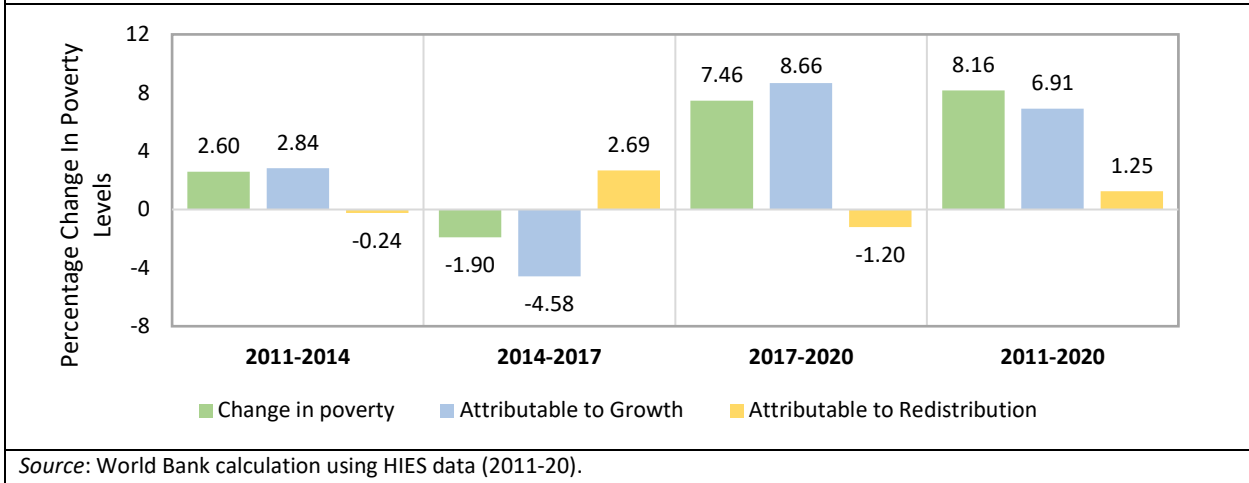
Period	Annual GDP growth	Annual per-capita GDP growth	Annual per-capita private consumption growth	Annual poverty growth	Growth elasticity of poverty	
					Per-capita GDP	Private consumption
2011–14	-0.1%	-1.6%	-2.0%	0.9%	-0.53	-0.44
2014–17	3.4%	1.5%	0.6%	-0.6%	-0.42	-1.03
2017–20	-0.5%	-1.6%	-3.2%	2.5%	-1.54	-0.77
2019–20	0.3%	-0.7%	-3.4%	2.4%	-3.66	-0.72
<b>2011–20</b>	<b>0.9%</b>	<b>-0.6%</b>	<b>-1.5%</b>	<b>0.9%</b>	<b>-1.56</b>	<b>-0.59</b>

Source: World Bank calculation using HEIS and Central Bank of Iran data (2011–20).

**Poverty dynamics in Iran over the past decade were more sensitive to economic contraction than to economic growth.** Mechanically, changes in poverty levels are due either to changes in consumption, which can be positive or negative, or to the redistribution of consumption from richer to poorer households (Azevedo, Sanfelice, and Nguyen 2012). Across the three periods of analysis, this exercise reveals that, during periods of economic contraction, increases in poverty were almost entirely attributable to negative consumption growth (Figure 11). Yet, while positive economic growth between 2014 and 2017 pushed down poverty, this growth was unevenly distributed. A redistribution of wealth from the poorest to the richest thus partially offset the potential poverty-reducing effects of growth. If the growth in household consumption between 2014–17 had been shared equally, poverty would have fallen by an additional 2.7 percentage points. When the economy contracted again between 2017 and 2020, redistribution from the richest to the poorest marginally mitigated the rise in poverty, which would otherwise have increased by a further 1.2 percentage points.

<sup>16</sup> Growth elasticity is the ratio of annual growth in the poverty rate over annual GDP growth ( $0.9 \text{ percent} / -0.6 \text{ percent} = -1.56$ ); in this counterfactual scenario, if GDP had grown at 0.6 percent per year, holding the elasticity fixed, then poverty would have decreased by 0.9 percent a year, or 7.9 percent over a decade.

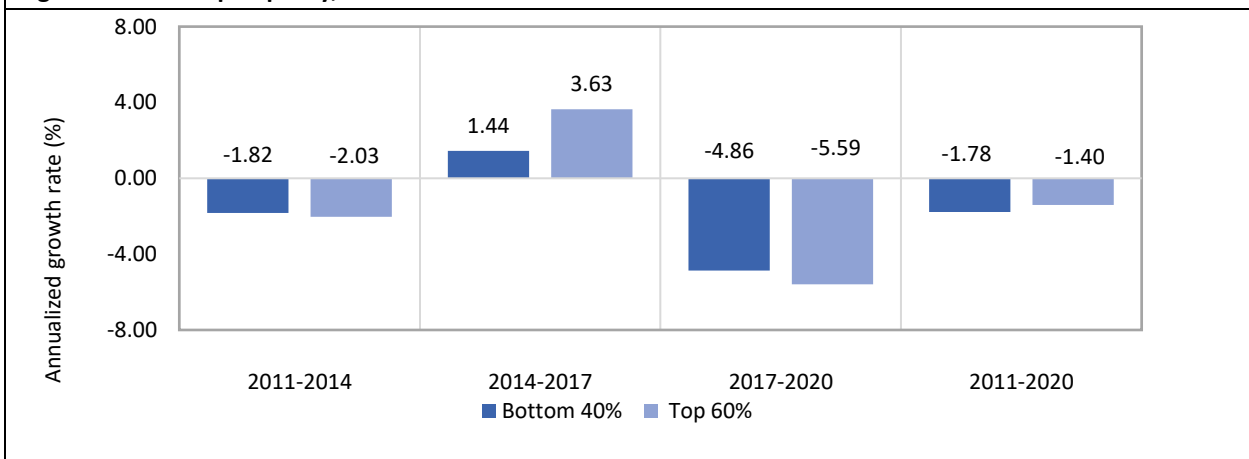
**Figure 11: Growth and redistribution effects on poverty reduction, 2011–20**



**The bottom 40 percent of households in terms of consumption did not benefit from the rare periods of economic growth.** During the one period of economic growth between 2014 and 2017, consumption for the top 60 percent of households increased more than twice as fast as consumption for the bottom 40 percent (Figure 12). This provided wealthier households with a buffer during the subsequent economic contraction. Consequently, over the past decade, the bottom 40 percent of households saw a proportionally greater annualized drop in consumption.

**Looking across the distribution of household consumption, the poorest suffered the most during recessions and benefited the least during periods of economic expansion.** Between 2011 and 2020, the households in the bottom percentile saw their real consumption decrease by about 2 percent each year, on average, compared to about 1 percent per year for the households in the top percentile of consumption. This is largely because, during the brief period of economic expansion, consumption among the top deciles of households increased proportionally more (Figure 13). Conversely, during periods of recession, the poorest deciles saw the greatest decrease in consumption. Overall, inequality, as measured by the Gini index, rose slightly from 35.5 in 2011 to 36.7 in 2020.

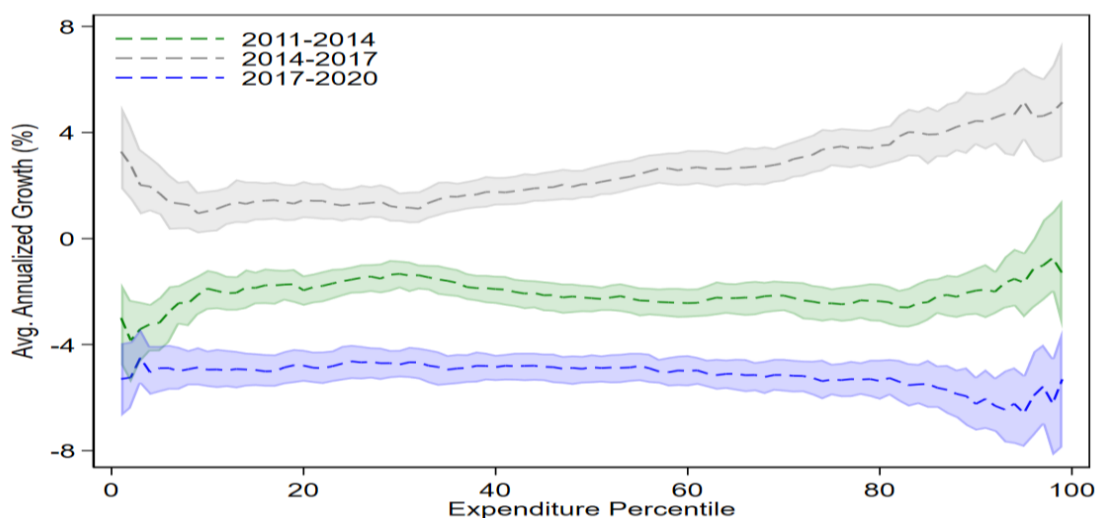
**Figure 12: Shared prosperity, 2011–20**



Note: A shared prosperity measure compares the annualized growth in consumption for the bottom 40 percent of households to that of the top 60 percent of households.

Source: World Bank calculation using HIES data (2011-20).

**Figure 13: Growth incidence curves, 2011–20**



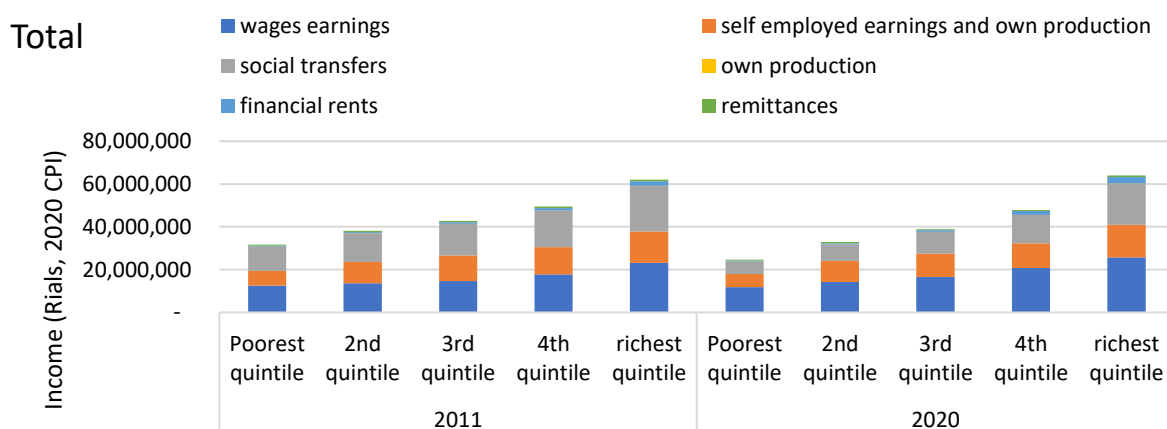
Note: A growth incidence curve shows the annualized change in consumption for all households, from the poorest to the richest. A flat slope means that households all experience the same rate of consumption change. An upward slope means that rich households increase their consumption more rapidly than poor households or decrease it at a lower rate.

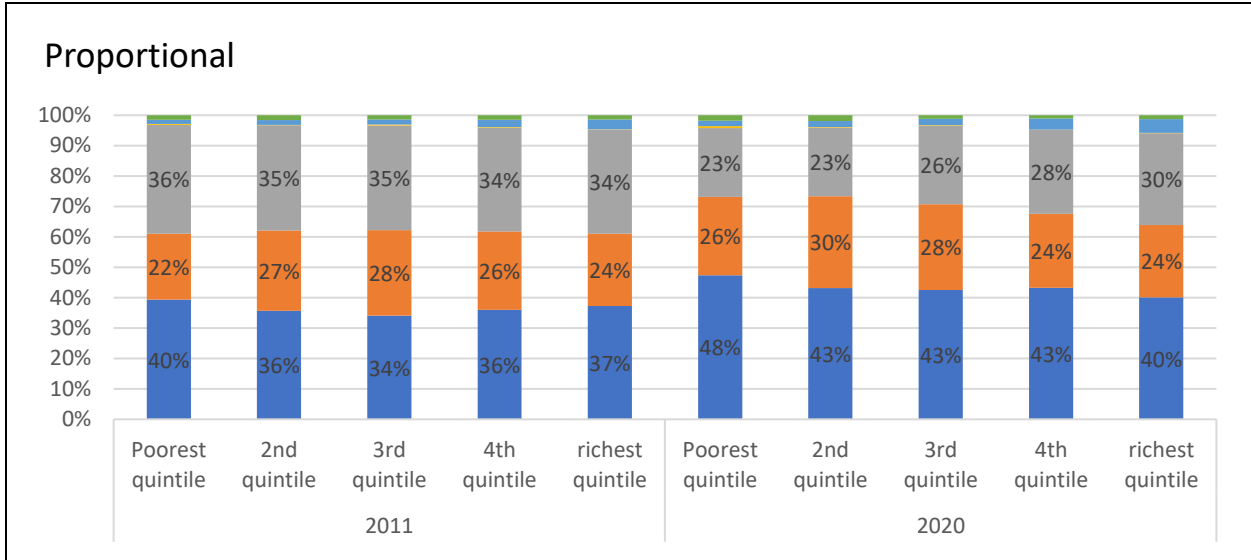
Source: World Bank calculation using HIES data (2011-2020).

### Determinants of Poverty Trends

**The poorer deciles have had to rely increasingly on wages and self-employment earnings for their income, as the value of cash transfers has eroded.** To understand why growth in Iran has not been inclusive, it is important to look at the drivers of household income dynamics. Decomposing income sources by household consumption quintiles, the real value of social transfers for the bottom three quintiles has declined, from a third of income to a quarter. Reliance on wages and self-employment earnings has increased in response (Figure 14). The combination of wage earnings and self-employed earnings now constitutes about three-quarters of income for those households. By contrast, the income portfolio of the top quintile of households is more diversified, as the value of their social transfers—typically pensions—has held up. They also benefit marginally from financial rents and remittances.

**Figure 14: Composition of household income, by quintile**

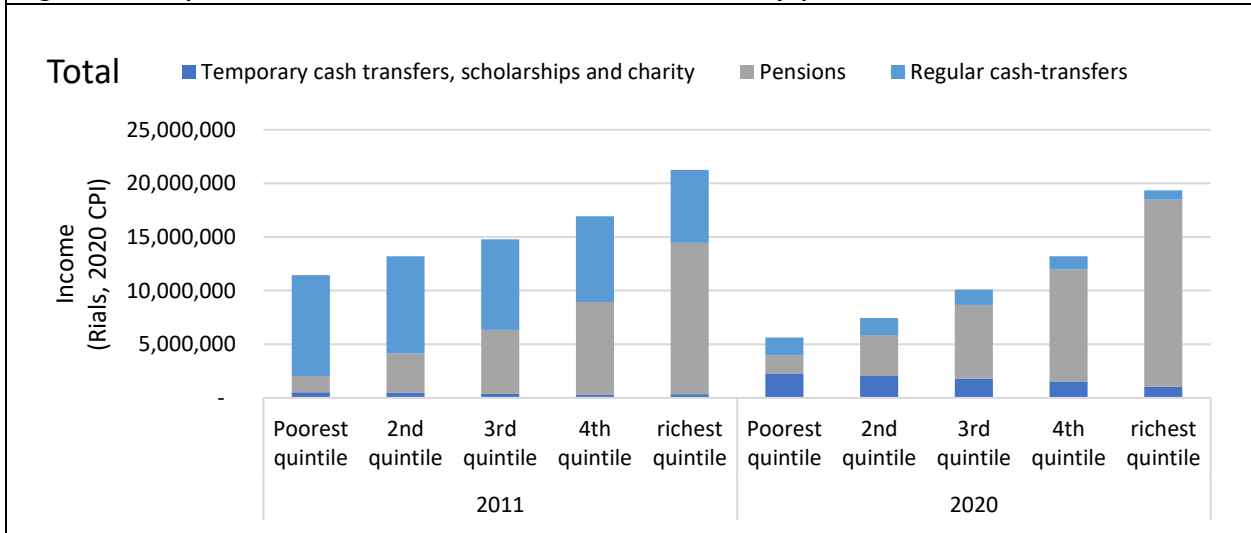




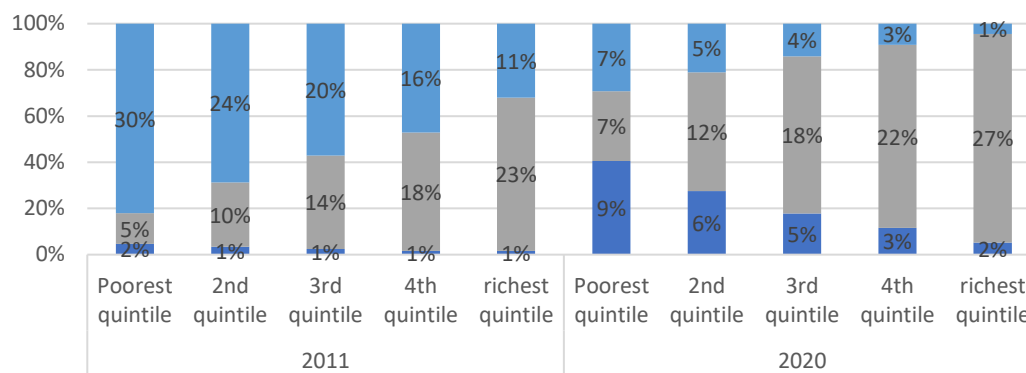
Source: World Bank staff calculations using HIES data (2011-20)

**In terms of social protection, the rich rely on pensions while the poor rely on cash-transfers.** There are three types of social transfer categories in the household survey. These consist of regular cash transfers, pensions, and a miscellaneous category that includes temporary cash transfers, scholarships, and charity (Box 4). The top two consumption quintiles rely proportionally more on pensions for their income (Figure 15). These pensions are indexed to inflation and have therefore retained their value over time. By contrast, the bottom three quintiles rely on cash transfers. These payments were first rolled out in late 2010 as part of an energy subsidy reform (Salehi-Isfahani, Stucki, and Deutschmann 2015). However, as prices have continued to increase, the real value of these transfers has eroded gradually (Enami and Lustig 2018). Only in late 2019 did the government distribute a top-up to the cash transfers, first in response to rising fuel prices and then to the emergence of COVID-19. This top-up was captured in the miscellaneous category of social transfers.

**Figure 15: Composition of household income from social transfers, by quintile**



## Proportional



Source: World Bank staff calculations using HIES data (2011-20)

### Box 4: The evolution of social transfers in Iran between 2010 and 2020

Iran has a robust social safety net that combines cash transfers, social insurance, near-universal health care, and subsidies. Protections include unemployment insurance, sick leave, maternity benefits, family allowances, unemployment benefits, and allocations for disabled persons (Ridao-Cano et al. 2023). The two direct benefits on which Iranians rely the most are pensions and cash transfers.

Iran's pension system comprises 18 contributory pension funds, which provide defined benefit pensions. An estimated 75 percent of employed people have pension insurance, of which half are covered by the Social Security Organization. Those without pensions work primarily in the informal sector and as seasonal laborers (LANDINFO 2020). Contributions are mandatory for wage workers and optional for the self-employed, who may opt in to the pension system with a payment of 12 percent of their income. Full pension is paid at age 60 for men and 55 for women with at least 20 years of contributions, or at age 50 for men and 45 for women with at least 30 years of covered work. Critically, pensions are benchmarked to the minimum wage and adjusted for increases in the cost of living, so they retain their real value.

While Iran long relied on universal fuel and bread subsidies, economic reforms in 2010 and 2011 phased out these subsidies and replaced them with targeted cash transfer program known as the Targeted Subsidy Program (Guillaume, Zyteck, and Farzin 2011). The transfer was set at 455,000 Iranian rials, or about US\$40 (US\$90 in 2011 purchasing power parity terms) per person per month for all Iranians (Salehi-Isfahani, Stucki, and Deutschmann 2015). While initially intended to be universal, the government has tightened the requirements gradually to exclude the top 30 percent of households (UNICEF 2019). Initial estimates suggested that the cash transfers had a positive effect in reducing poverty and inequality, with a reduction in the headcount ratio by 11.9 percentage points (Enami, Lustig, and Taqdiri 2019).

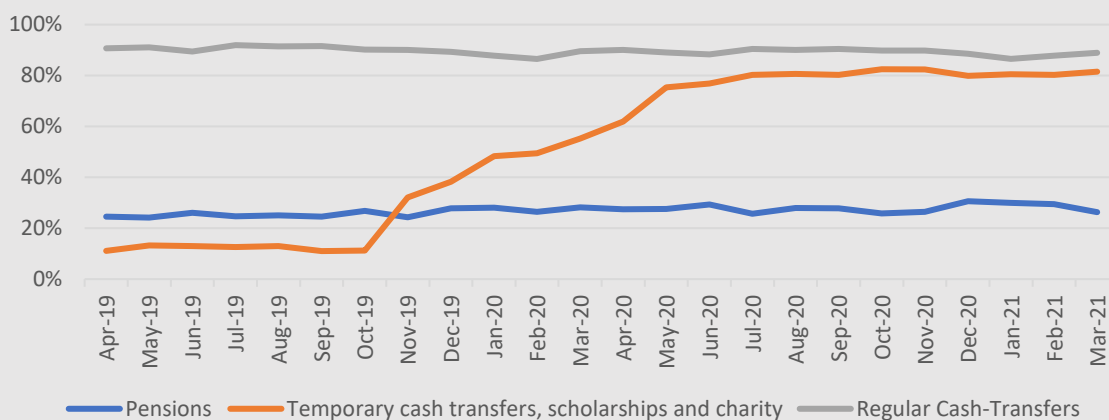
Though these cash transfers had a positive impact in the short run, however, their value did not keep up with price increases in the same way that the value of pensions did. Between 2012 and 2016, the real value of the cash transfer was cut nearly in half (Enami and Lustig 2018). This disproportionately affected the poorest quintile of households, which relied more on welfare and less on pensions. As a result, the poverty-reducing effect of the cash transfer is estimated to have declined by about 40 percent, and it was unable to provide a buffer against steadily rising poverty levels (Enami and Lustig 2018). By 2019, the purchasing power of the benefit had fallen to less than US\$6 per person (UNICEF 2019).

At the same time, the shift away from direct subsidies remains incomplete. Iran continues to subsidize energy costs, including gasoline, diesel, and electricity. The IMF estimated that explicit energy subsidies amounted to US\$58.7 billion in 2019, almost 10 percent of GDP.<sup>17</sup>

In late 2019, the Iranian government rolled out additional payments to beneficiaries to buffer the effect of rising gas prices. This top-up targeted the bottom 70 percent of households. A single-member family received 555,000 rials (about US\$20 in purchasing power parity terms) per month, with smaller increments for additional family members up to a maximum of five (Salehi-Isfahani 2019). Following the onset of COVID-19, these payments were supplemented with an interest-free loan amortized on future payments (Gentilini et al. 2022). Iran spent an estimated 4 percent of GDP on social protection expenditures in response to COVID-19, the highest share in the Middle East and North Africa region (Ridao-Cano et al 2023).

It is possible to track the rollout of this top-up in the data since, for reporting purposes, the Statistical Center of Iran recorded these additional payments under a miscellaneous category which includes temporary cash transfers, scholarships, and charity. Accordingly, while the proportion of households that reported receiving subsidies remained constant in 2019 and 2020, the proportion that reported receiving “temporary cash transfers, scholarships, and charity” payments increased from 13 percent to 82 percent between October 2019 and July 2020, reflecting the rollout of the supplemental payments (Figure B4). This top-up helped to compensate for income losses through reduced wages and self-employed earnings during the pandemic.

**Figure B4: Receipt of pensions, cash transfers, and scholarships, welfare, and charity, April 2019–March 2021**



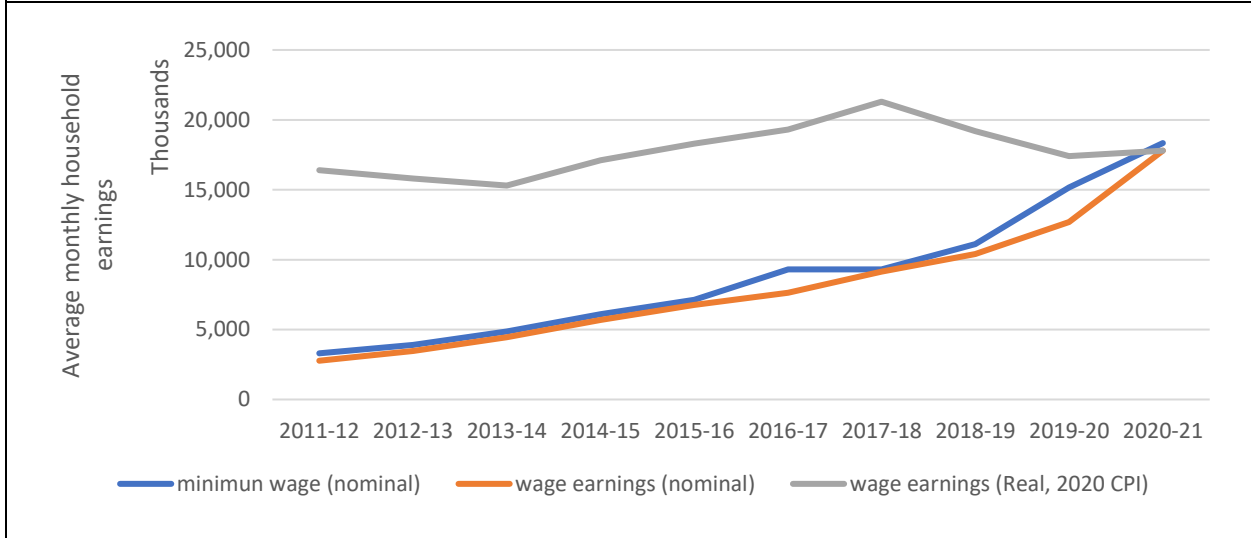
Source: World Bank staff calculations using HIES data (2011-20).

**Eroded by inflation, real wages and self-employed earnings stayed essentially flat over the past decade.**

The nominal monthly wage earnings for an average household has increased by 552 percent over the past decade, driven by inflation (Figure 16). This has been propped up by a continually updated minimum wage, which has sought to keep pace with the increase in prices. By contrast, real wage earnings have fluctuated considerably, and on average their value increased by only 10 percent between 2011 and 2020. Hourly wages increased by 16 percent in the same period. Self-employed earnings in the same period have remained essentially flat. At the extensive margin, wage employment has remained relatively stable, while the proportion of self-employed working age adults has decreased (Figure 17). We find little evidence of an increase in households supplementing their income with a second job or through own production. At the intensive level, the average number of hours worked has fluctuated with the economic cycle. When the economy was expanding and real wages increased, households increased their hours as the opportunity cost of leisure was higher. When real wages stagnated, workers cut back on hours worked.

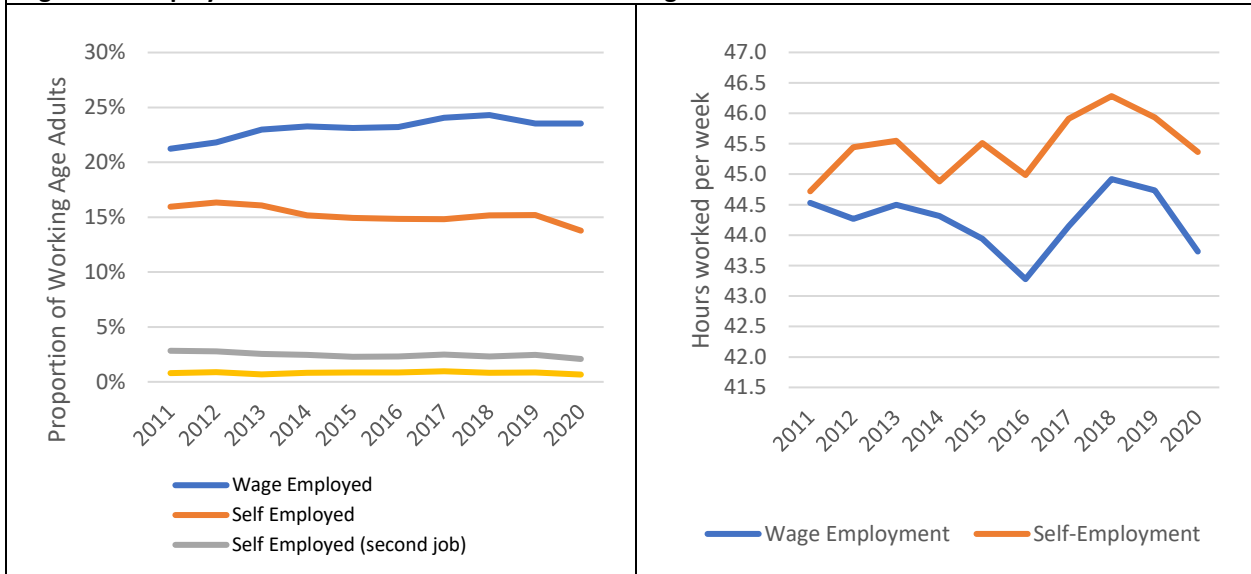
<sup>17</sup> See IMF fuel subsidy database, available at: <https://www.imf.org/-/media/Files/Topics/Environment/energy-subsidies/fuel-subsidies-template-2022.ashx> (accessed July 13, 2023).

**Figure 16: Real and nominal earnings, 2011–20**



Source: World Bank calculations using data from HIES, minimum wage is the statutory nominal gross monthly minimum wage as reported by the International Labor Organization

**Figure 17: Employment at the extensive and intensive margin**

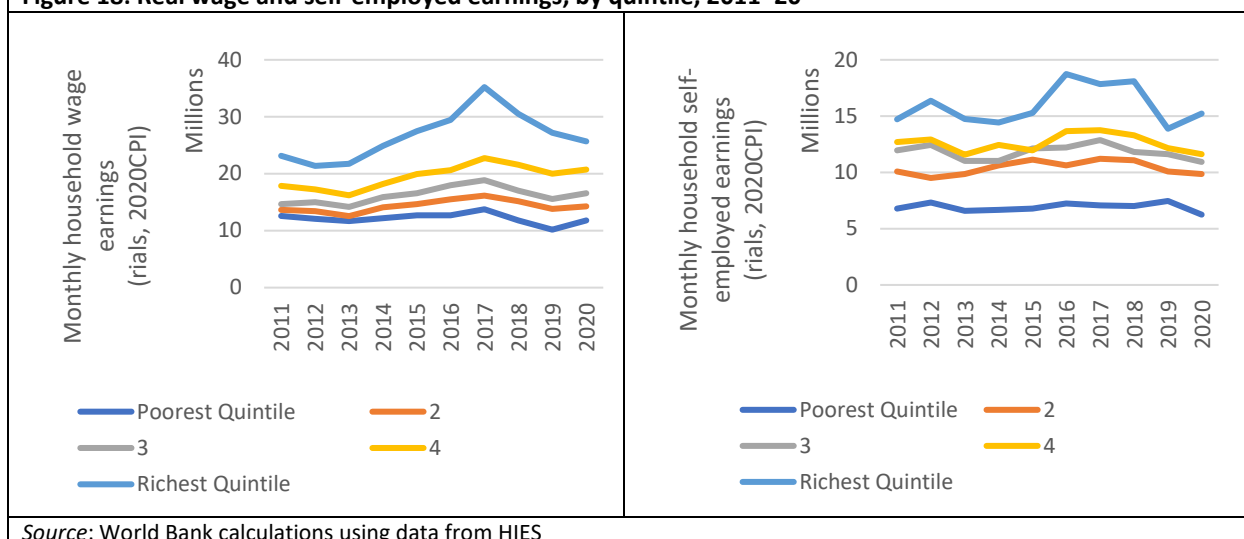


Source: World Bank calculations using data from HIES

**The observed increase in real wages has been concentrated among the richest quintile of households.** These have seen their real wages increase by 11 percent over a decade, while real wages for the poorest quintile decreased by 6.4 percent (Figure 18). Self-employed earnings fluctuated more, but also increased disproportionately for the top two quintiles of households before crashing back down. For all but the richest quintile, self-employed earnings were lower in real terms in 2020 than they were in 2011. These patterns hold when we control for hours worked and look at hourly earnings.



**Figure 18: Real wage and self-employed earnings, by quintile, 2011–20**



Looking at income trends across sectors, income for white collar service sector jobs increased more during periods of expansion and decreased less during period of contraction; the opposite happened for blue-collar workers. As a result, on average over the past decade, real income for service sector workers stayed essentially flat, while it decreased for blue-collar workers (Table 3). This is because service sector workers experienced significant growth in income during the 2014–17 period, when the economy was expanding. While they were also hit hard by the subsequent economic slowdown, their accumulated gains meant that they came out even in the long run. By contrast, real income in the construction sector declined over the long term, eliminating the small gains made between 2014 and 2017. Those working in the extractive sector saw large swings in income. In the agriculture sector, there is a clear dichotomy: self-employed farmers were somewhat insulated from economic fluctuations, whereas agricultural wage laborers saw their real incomes decline, likely because their wages were eroded by inflation.

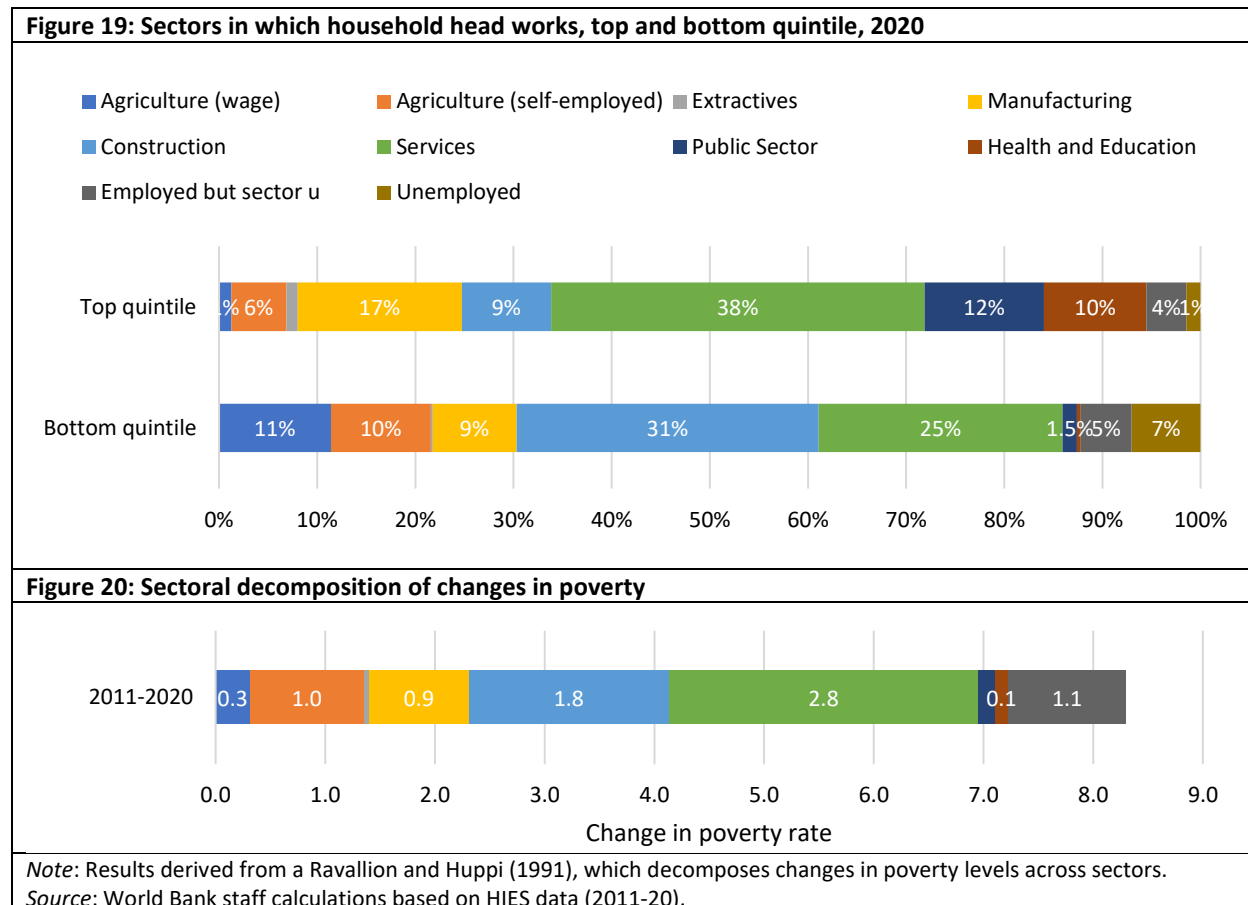
**Table 3: Change in real income, by sector**

	TOTAL: 2011–20	2011–14	2014–17	2017–20
<b>AGRICULTURE (WAGE)</b>	-13%	-17%	9%	-4%
<b>AGRICULTURE (SELF-EMPLOYED)</b>	0%	-7%	13%	-4%
<b>EXTRACTIVES</b>	-14%	-12%	33%	-26%
<b>MANUFACTURING</b>	-5%	-11%	18%	-10%
<b>CONSTRUCTION</b>	-17%	-9%	7%	-15%
<b>SERVICES</b>	-4%	-5%	14%	-12%
<b>PUBLIC SECTOR</b>	1%	-1%	20%	-16%
<b>HEALTH AND EDUCATION</b>	5%	-1%	36%	-22%

Source: World Bank staff calculations based on HIES data (2011-20).

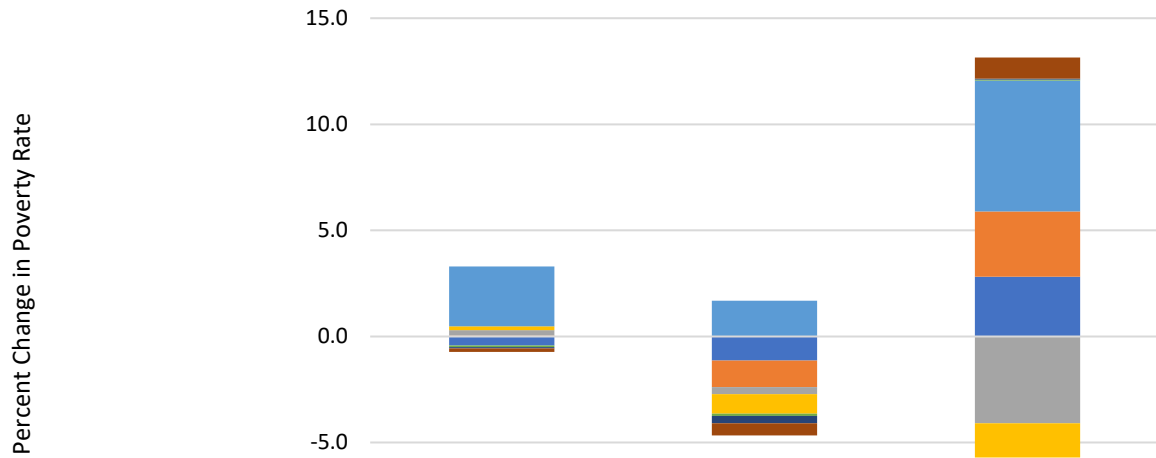
The increase in poverty was driven by declining real incomes in the economic sectors where the poorest households tend to work. Looking at the employment profile of household heads across quintiles, over one-fifth of those in the top quintile work in the public sector or in health and education, compared to less than 2 percent of those in the bottom quintile (Figure 19). By contrast, a third of household heads in the bottom quintile work in construction, a sector that saw no increase in real income in the last decade. Household heads in the bottom quintile are also much more likely to be unemployed. An attribution

exercise linking sectoral income and poverty rates confirms these trends: increases in poverty were driven by stagnant incomes in the construction, services, and agricultural sectors (Figure 20). The period of economic expansion between 2014 and 2017 marginally benefited households near the poverty line who were working in agriculture and in services. These gains were erased during the subsequent economic contraction.



**Fluctuations in earnings drove fluctuations in poverty levels, with social protection providing an important buffer during the latest crisis.** During periods of economic slowdown, increases in poverty were driven by a decline in the real value of earnings from wages and self-employment (Figure 21). While an increase in the minimum wage propped up nominal wages, the real value of those wages decreased between 2011 and 2014. As previously noted, while the initial rollout of cash assistance in late 2010 is likely to have reduced poverty, the increase in prices since then has eroded the real value of these cash transfers. Since poor households have relied disproportionately on these cash transfers, the erosion in their real value contributed to an increase in poverty. When wage and self-employment earnings increased between 2014 and 2017, poverty decreased slightly. When these earnings dropped again between 2017 and 2020, poverty increased. During this last economic slowdown, the top-up to the cash transfers, captured as “scholarships, welfare, and charity,” acted as an important buffer. Without those additional transfers, the poverty rate would likely have increased by a further 4.1 percentage points.

**Figure 21: Decomposition of the drivers of poverty**



	2011-2014	2014-2017	2017-2020
remittances	-0.2	-0.6	1.0
financial rents	-0.1	-0.3	0.0
selfproduced	-0.1	-0.1	0.0
cash-transfer	2.8	1.7	6.2
pensions	0.2	-0.9	-1.6
scholarships, welfare and charity	0.3	-0.3	-4.1
self employed earnings	0.0	-1.3	3.1
wage earnings	-0.4	-1.1	2.8

*Note:* The Shapley decomposition of consumption by components constructs a sequence of component elimination pathways and calculates the average of the marginal contributions of eliminating each component in all possible sequences to the change in consumption. See Paes de Barros et al. (2006) and Azevedo, Sanfelice, and Nguyen (2012).

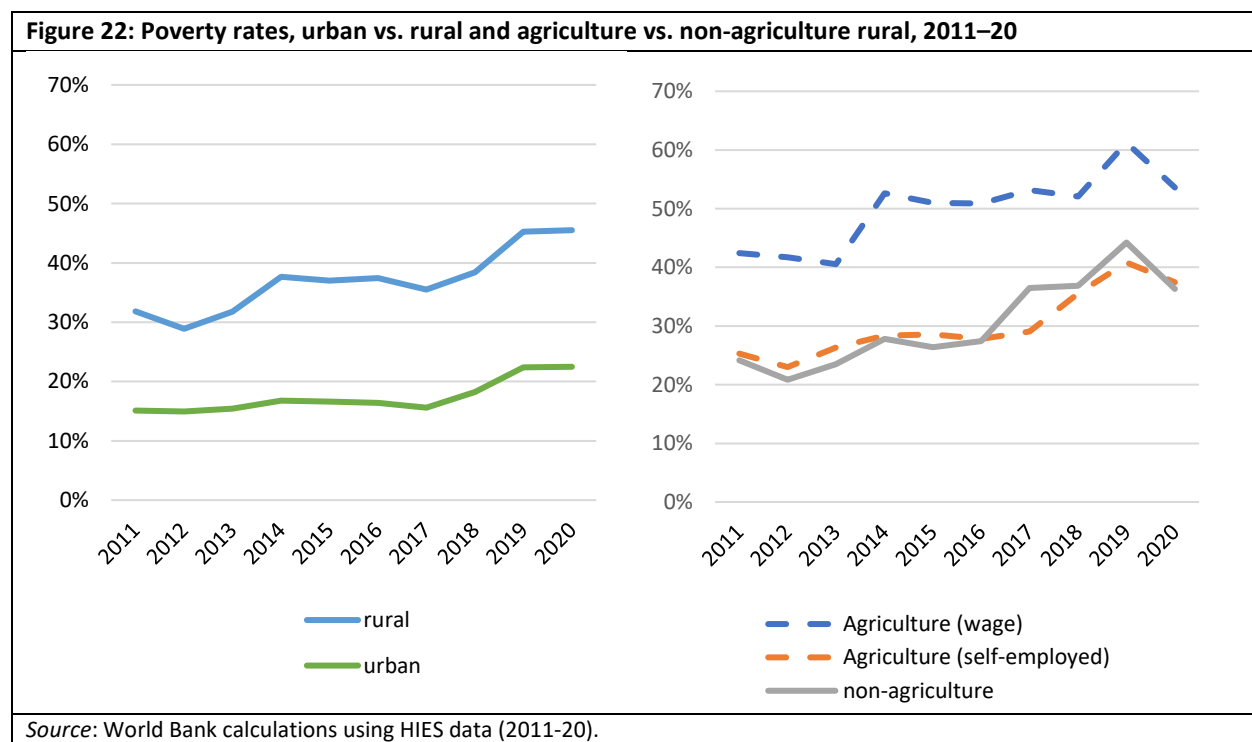
*Source:* World Bank staff calculations based on HIES data (2011-20).

## Spatial Disparities in Poverty

### Rural–urban divide

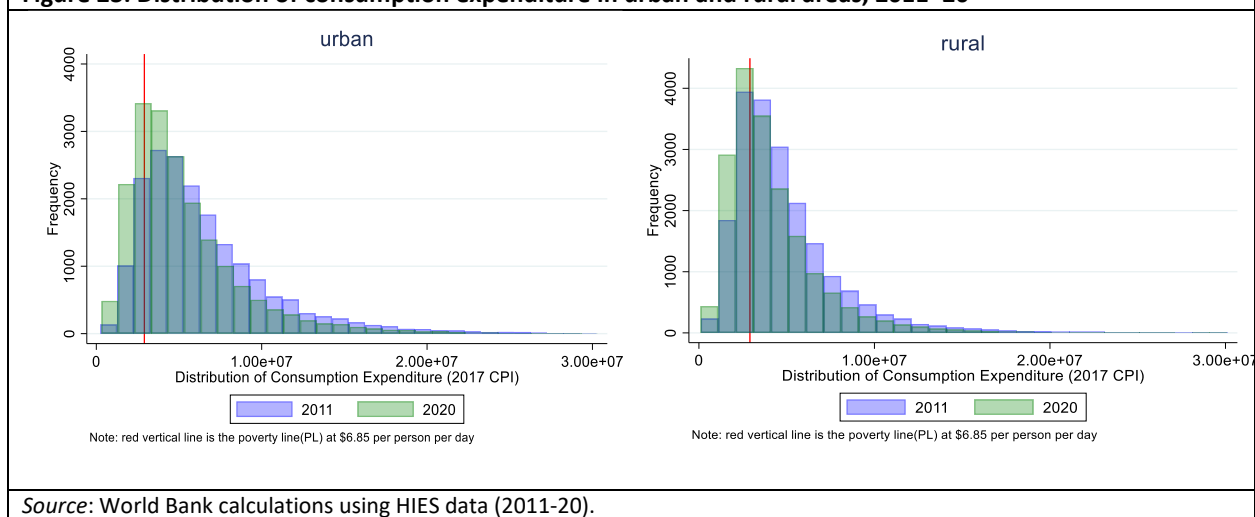
**The poor are increasingly concentrated in rural areas.** While only a quarter of the population lives in rural areas, 40 percent of the poor live there. Almost half of the rural population are poor. Poverty has increased across the board, but the rural–urban divide has widened. Between 2011 and 2020, poverty increased by 7 percentage points in urban areas and 14 percentage points in rural areas (Figure 22). This growing spatial inequity is partly the result of structural transformation. Those moving from the farm to study or find a job in the city tend to be better educated, leaving behind those who cannot access those economic opportunities.

**Even within rural areas, there are large disparities across sectors.** Employment levels are higher and unemployment levels lower in rural areas, but the jobs that are available do not necessarily provide a reliable income. A third of rural inhabitants rely on agriculture, and about 12 percent are agricultural wage laborers. Over half of these agricultural laborers were poor in 2020, compared to 36 percent of those self-employed in agriculture and non-agricultural workers. This highlights the extreme precarity of these workers, who cannot rely on their own production to mitigate the impact of rising food prices. Agricultural workers are also the most vulnerable to the effects of increasingly severe drought due to climate change (Box 5).



**The depth of poverty has increased.** As households' income was eroded by inflation, they were forced to cut down on consumption, pushing many households deeper into poverty (Figure 23). These cut-backs have entailed cutting back on non-food expenditures to afford food and rent. While many urban households live right around the poverty line, rural households tend to be poorer. On average, a poor person living in a rural poor area would require a transfer equivalent to 15 percent of their consumption to move out of poverty, while a poor person in an urban area would require the equivalent of 6 percent of their consumption. This is even after adjusting for spatial difference in the cost of living.

**Figure 23: Distribution of consumption expenditure in urban and rural areas, 2011–20**



Source: World Bank calculations using HIES data (2011-20).

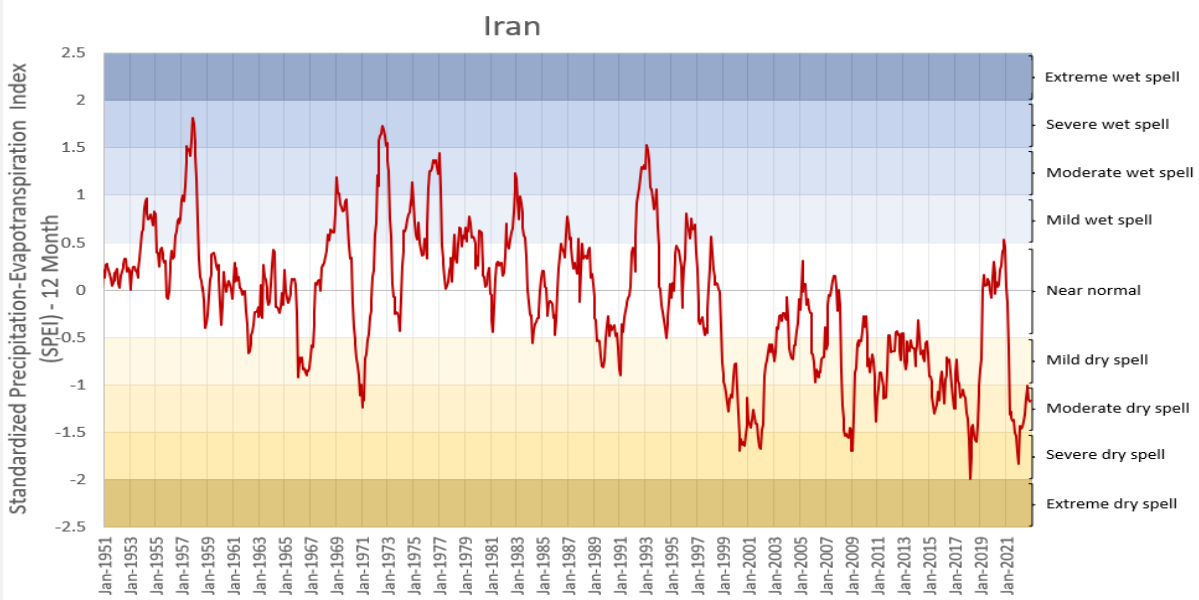
#### Box 5: Links between climate change and poverty in Iran

Water is an increasingly scarce commodity in Iran due to the country's overexploitation and inefficient use of water resources, combined with the effects of climate change. Iran is a semi-arid country, and seven of the country's 31 provinces are classified as facing and experiencing water shortages, while 13 face a critical water situation. The agriculture sector accounts for the majority of water usage (World Bank 2018). Due to the country's policy of self-sufficiency in agriculture, irrigation accounts for as much as 92 percent of water withdrawals, higher than the averages for the Middle East and North Africa region (80 percent) and the world (70 percent) average. Half of these withdrawals come from groundwater, leading to overexploitation and depletion.

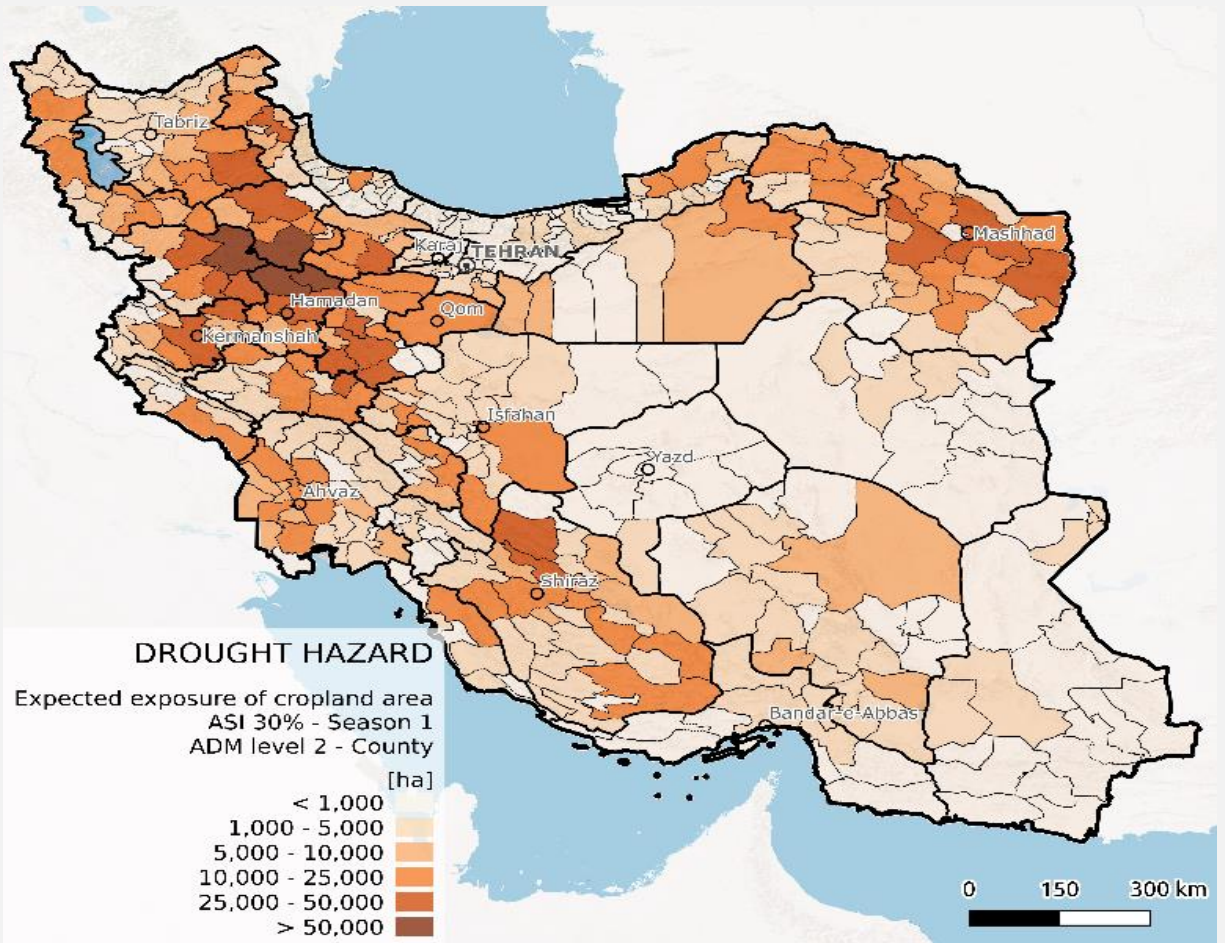
Iran's economic exposure to water stress is significant. Results of a recent economic modeling exercise conducted for six Middle Eastern countries indicate that a 20 percent reduction in water supply could decrease GDP in Iran by up to 7.2 percent compared to 2016 levels (Taheripour et al. 2020). The economic impact would not be confined to the agriculture sector, and the industrial sector would be hit the hardest. The impact of water shocks would also translate into a decline in the demand for labor, further aggravating Iran's unemployment challenges. It is estimated that greater water scarcity could reduce labor demand by up to 4.6 percent in the agriculture sector and 10 percent in non-agricultural activities.

Dry spells have increased in frequency and severity in Iran over the past decade, which may have contributed to the observed increase in poverty. Overlaying drought risk with arable land reveals that rural areas are highly vulnerable to drought, particularly in the Northwest region (Figure B5). These areas have also seen the largest increase in poverty over the past decade. This trend may be driving increased rural-urban migration, as households displaced by drought seek economic opportunities in cities, a growing global phenomenon (Clement et al. 2021). This relationship between drought and rural welfare is explored further as part of the second analytical deep-dive.

**Figure B5a: Incidence of abnormally wet or dry spells, 1951–21**



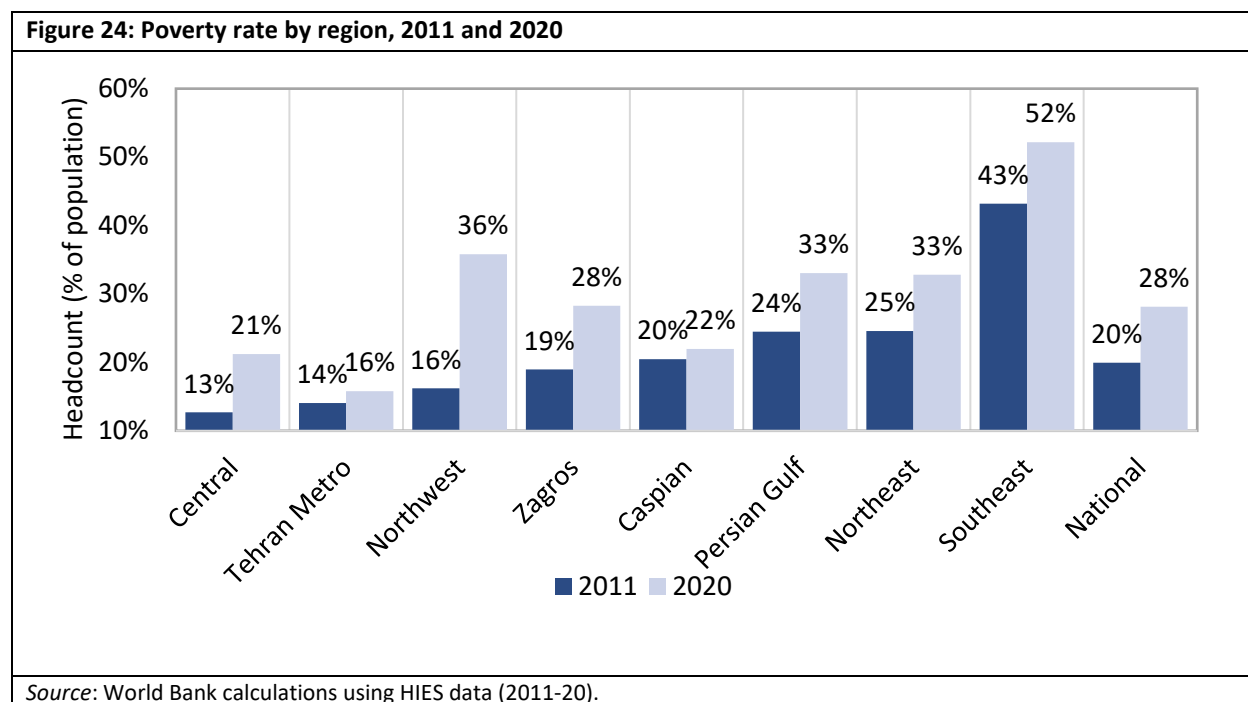
**Figure B5b: Cropland exposure to drought conditions, by district**



Source: World Bank calculations based on data from the Food and Agriculture Organization Agriculture Stress Index.

## Increasing regional disparities

**Disparities have increased across the country, with poverty increasingly concentrated in the Southeast and Northwest regions.** In 2020, 32 percent of the poor households in the country lived in these two regions, home to only 20 percent of the total population. Conversely, only 24 percent of the poor live in the Tehran metro area and the Central region, where 40 percent of the population lives. These spatial disparities have only widened (Figure 24). The poverty headcount has increased from 43 percent to 52 percent in the Southeast region, and from 16 percent to 36 percent in the Northwest region. The difference in poverty headcount between the Southeast region and the Tehran metro area has increased from 29 percentage points to 36 percentage points over the past decade.

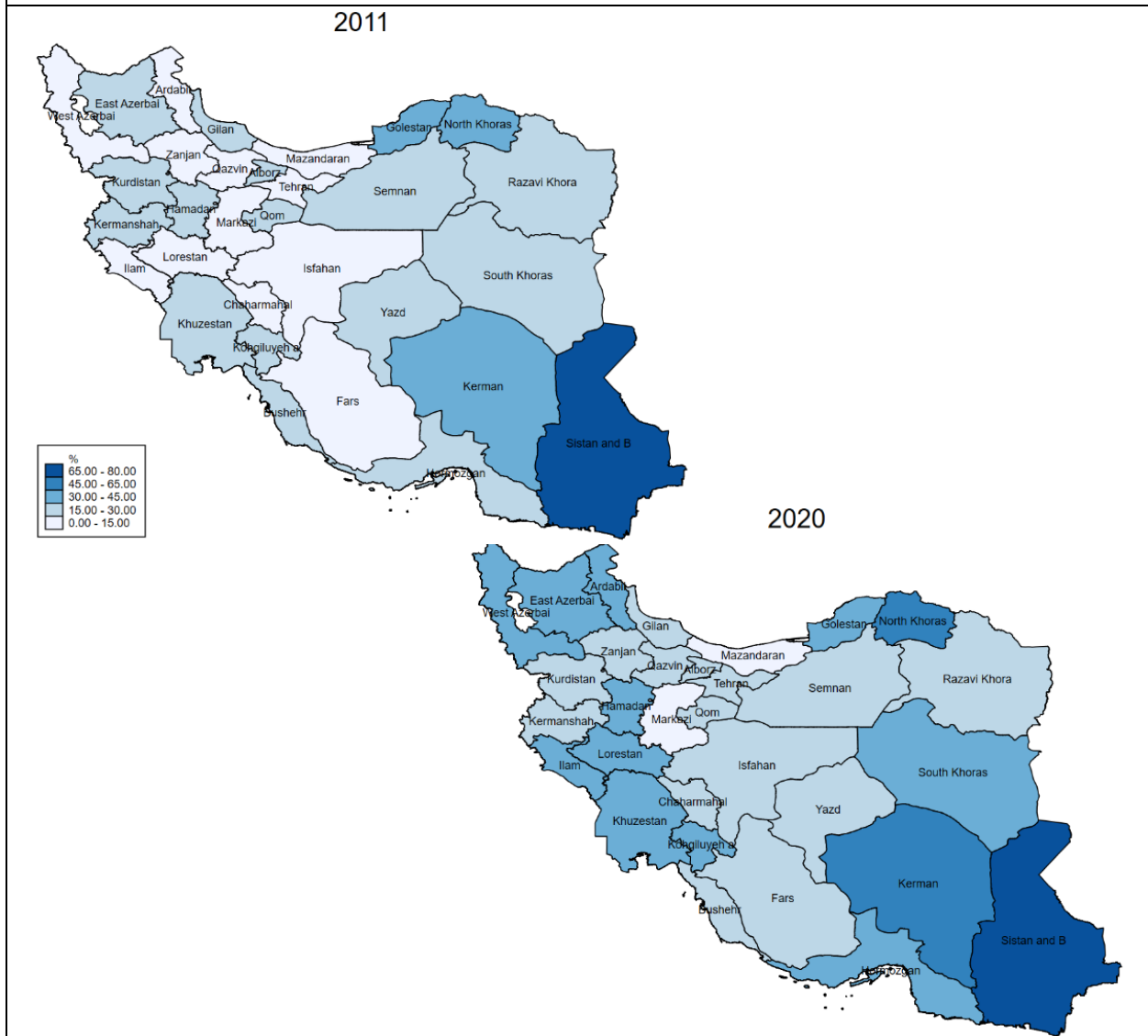


**The increase in poverty varied greatly across provinces.** Poverty rates in West Azerbaijan, for example, have more than tripled, from 13.6 percent to 44 percent—the largest increase in the country (Figure 25). By contrast, the province of Bushehr, along the Persian Gulf, is one of the few whose poverty rate has dropped over the past decade.

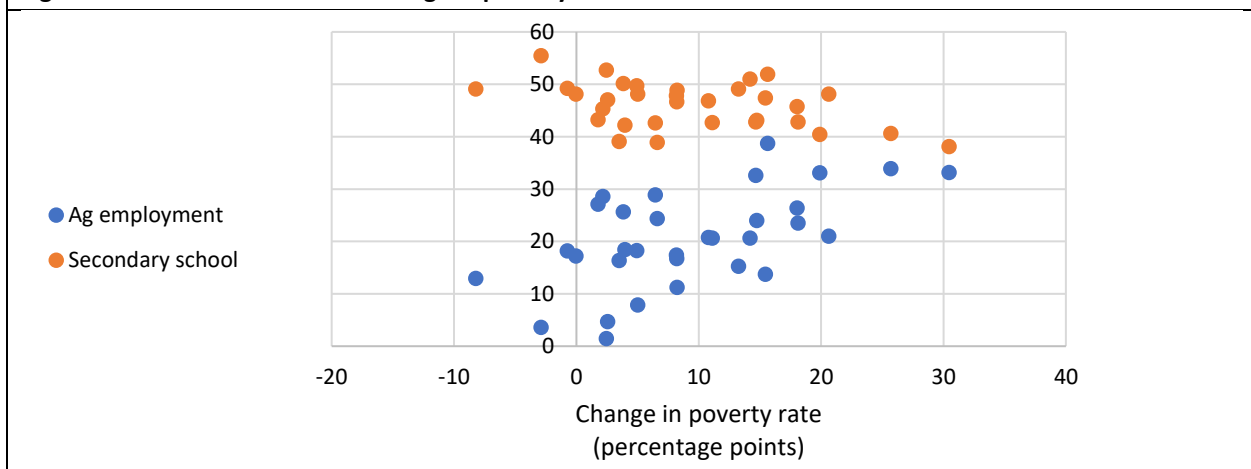
**There is a strong correlation between increases in the poverty rate at the provincial level and the share of the labor force that works in agriculture.** Some of the provinces with the greatest increases in poverty rely heavily on agriculture, with over a third of their labor force employed in the agricultural sector (Figure 26). As previously noted, it is likely that agricultural laborers were disproportionately affected by increasing prices compounded by persistent drought. Working-age adults in these provinces are also less likely to have a secondary education, which affects their ability to both adapt and transition out of agriculture in search of better economic opportunities.<sup>18</sup>

<sup>18</sup> Education may help mitigate the effects of weather shocks. A study of disaster preparedness in the Philippines and Thailand found that education improves reasoning and anticipation skills, and that those who are better educated undertake preventive measures without needing to first experience the harmful event. (Hoffmann and Mutarak 2015).

**Figure 25: Poverty rate by province, 2011 and 2020**



**Figure 26: Correlation between change in poverty and labor force indicators**



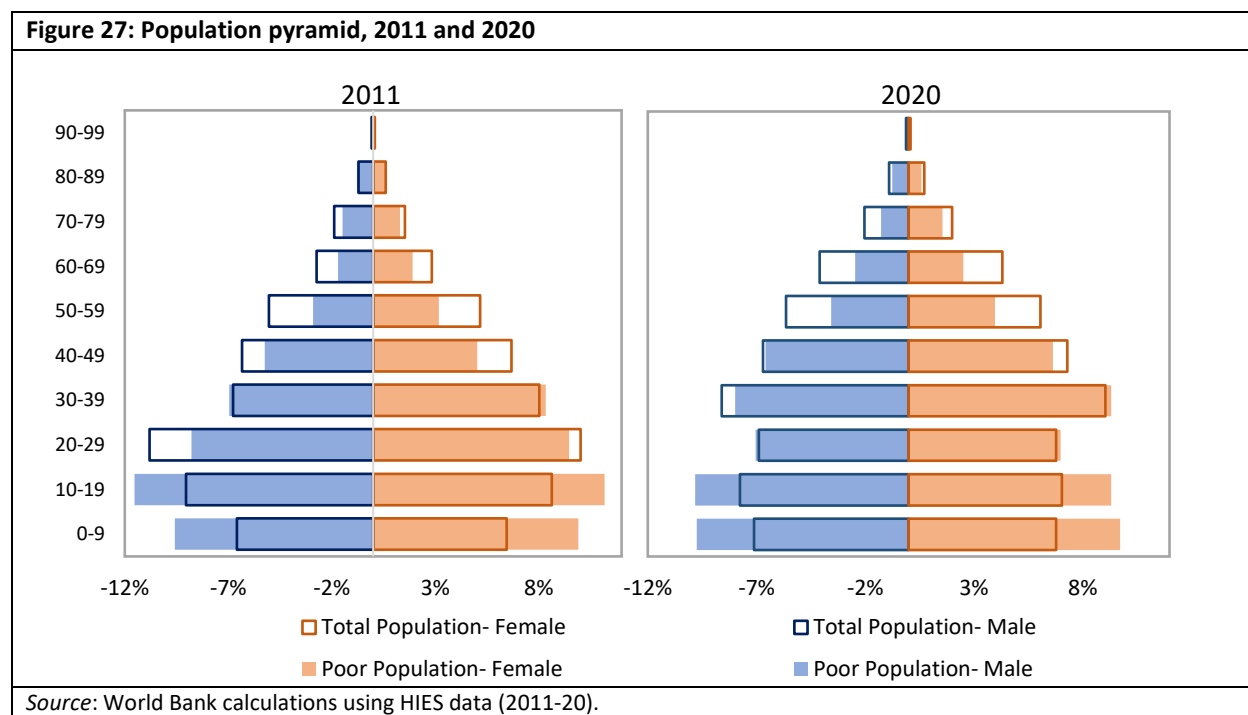
Source: World Bank calculation using HIES data (2011-20).



## Profile of the Poor

### Demographics

**Poor households are larger and have a higher economic dependency ratio.**<sup>19</sup> The poor tend to have more children. In 2020, for example, there were 1.2 children, on average, in a poor household and 0.6 children, on average, in a non-poor household. This translates to a higher dependency ratio and thus a higher economic burden. For every adult between the ages of 15 and 64, there are 0.44 dependents in non-poor households and 0.68 dependents in poor households. Consequently, young Iranians under the age of 20 are disproportionately poor, representing 28 percent of the overall population but about 38 percent of the poor in 2020 (Figure 27). Older cohorts, age 50 and above, are less likely to be poor relative to their share of the population.

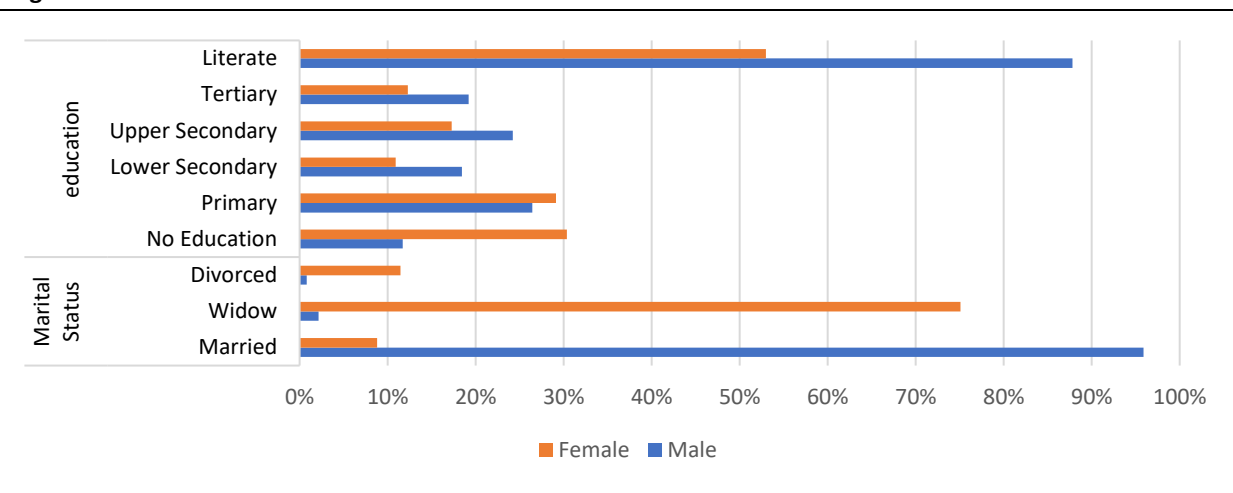


### Female-headed households are more likely to be poor, and this likelihood has only increased over time.

About 14 percent of households were headed by a female in 2020. Over 90 percent of these household heads were either widowed or divorced, while 98 percent of married households were headed by men, suggesting that most female-headed households lack a second actual or potential breadwinner. Almost a third of female household heads have no education, limiting their income-earning potential (Figure 28). Data on literacy rates show a similar trend: only 53 percent of female household heads are literate, compared to 88 percent of male household heads. Yet, even when controlling for marital status and education level, female-headed households were 9 percent more likely to be poor than male-headed households, suggesting that lingering social stigma may limit women's access to economic opportunities.

<sup>19</sup> The dependency ratio is the ratio of non-active household members (individuals aged 0 to 14, in school, retired, or working as homemakers) and economically active members (employed or unemployed).

**Figure 28: Characteristics of male- and female-headed households**



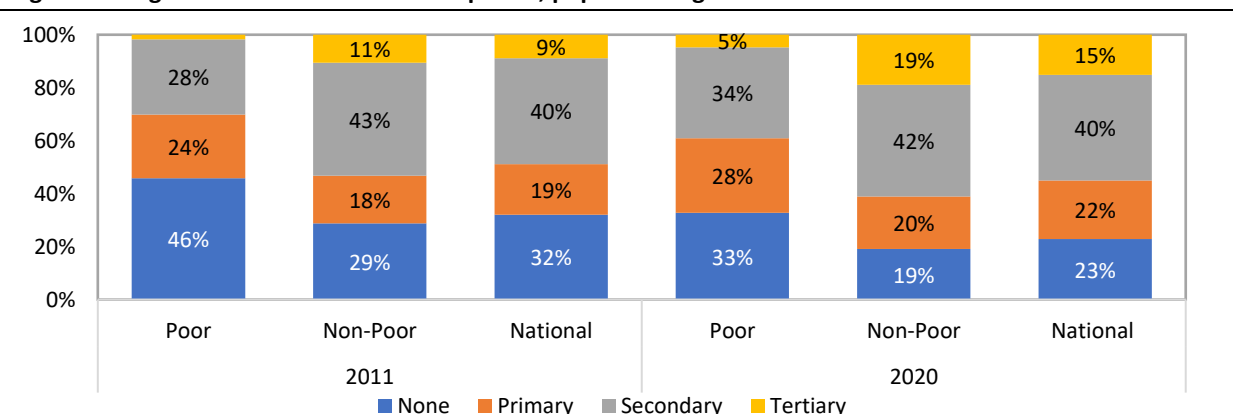
Source: World Bank calculations using HIES data (2011-20).

### Educational outcomes

**While educational outcomes have improved for everyone, the poor still have much lower education levels overall.** The proportion of Iranian adults with no education has dropped from 32 percent to 23 percent in the past decade (Figure 29). Two-thirds of poor individuals had at least a primary education in 2020, as compared to a little over half the poor in 2011. The overall literacy rate of household heads has increased from 75 percent to 83 percent. Yet large gaps remain. Only 73 percent of heads of poor households were literate in 2020. The non-poor are far more likely to have a secondary education, and tertiary education remains hard to reach for poor individuals.

**The least-educated have been the most vulnerable to the economic downturn.** Analysis of the household characteristics that correlate with poverty highlights the increasing importance of education as a differentiator between the poor and non-poor. Better-educated heads of household are much less likely to live in poverty. In 2011, a head of household with a secondary degree was 18 percent less likely to be poor. This marginal probability increased to 23.5 percent in 2020, suggesting that education plays an increasingly important role in differentiating between the poor and non-poor. Indeed, for household heads who have a tertiary degree, this increase in marginal probabilities is even larger.

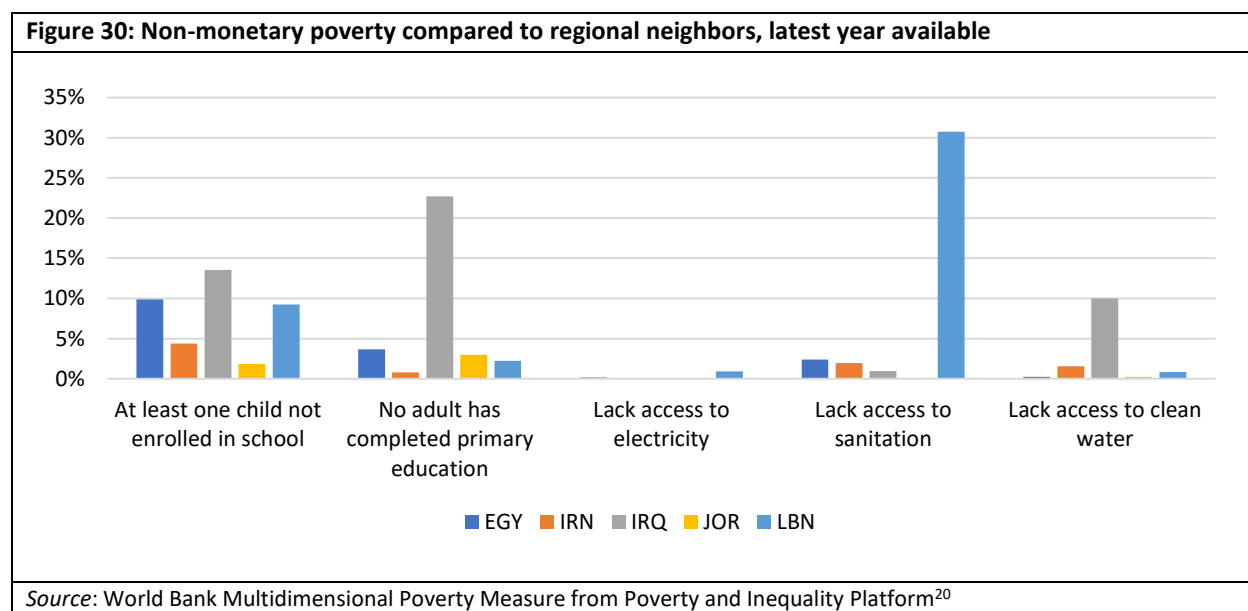
**Figure 29: Highest level of education completed, population aged 15+**



Source: World Bank calculations using HIES data (2011-20).

## Access to services and assets

**Access to basic services is almost universal in the country, except for access to modern sewage where there a large gap between rural and urban households.** The percentage of rural households with access to piped water and electricity increased from the low- to mid-teens at the time of the revolution to close to 90 and 99 percent, respectively, by 2004 (Salehi-Isfahani 2005). Iran compares favorably with its neighbors in access to education and basic services (Figure 30). There is no gap between poor and non-poor populations regarding access to electricity, with 99.9 percent of all populations having access (Table 4). Access to piped water and bathroom and kitchen facilities has continued to improve over the past decade, reflecting important advances among the poor and, consequently, reduced disparities. In contrast, significant discrepancies persist in terms access to modern sewage: 47 percent of urban households have access, compared to only one percent of rural households, including non-poor households. This suggests that differential access is the result of a lack of underlying infrastructure rather than affordability. However, beyond access, this data does not capture the quality of services, such as hours per day or number of interruptions in continuous service. Universal access might mask big differences in non-monetary welfare because these dimensions are not captured in the survey data.



**The country has seen improvements in the availability of mobile phones and the internet, but persistent differences remain regarding access to information technologies.** Mobile phone technology has become near universal in the past decade, with 96 percent of households reporting owning at least one cell phone in 2020. This increase was largely the result of catch-up among the poor, closing of the gap in cell phone ownership from 8 percentage points in 2011 to only 2 percentage points in 2020. Even more striking was the increase in internet access, from 13 percent of households in 2011 to 71 percent in 2011. However, the gap in internet access between poor and non-poor populations remains significant, as only 60 percent of the poor have access. This is largely a product of the disparities between rural and urban areas: half of rural inhabitants still lack internet. This reinforces the rural–urban gap in access to learning and economic opportunities.

<sup>20</sup> <https://pip.worldbank.org/>

**Table 4: Household profile in 2011 and 2020, by rural/urban and poor/non-poor**

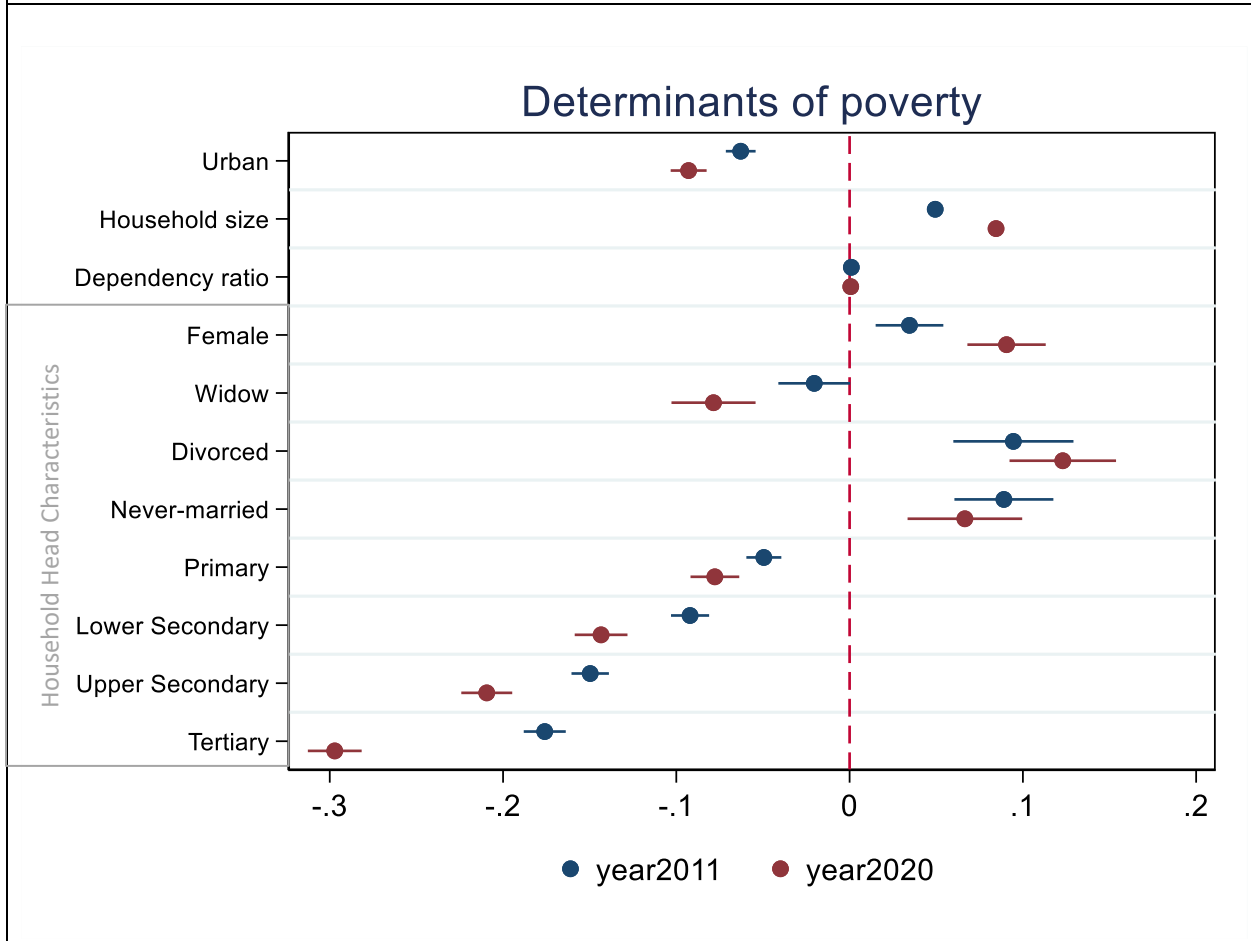
Household characteristics	Total		Urban		Rural		Poor		Non-Poor	
	2011	2020	2011	2020	2011	2020	2010	2020	2010	2020
% female head	13%	14%	13%	14%	13%	15%	12%	14%	13%	14%
Average head age	50.2	52.1	48.9	51.2	50.8	51.6	48.1	49.1	51.3	67.6
% literate head	75%	83%	81%	87%	58%	70%	59%	73%	78%	86%
% employed head	67%	61%	64%	59%	74%	67%	69%	59%	66%	64%
Average size	3.8	3.4	3.7	3.3	4.0	3.5	4.7	4.1	3.6	3.1
Dependency ratio	.47	.50	.43	.47	.57	.58	.72	.68	.42	.44
<b>Access to utilities</b>										
Electricity	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Phone	81%	61%	87%	67%	67%	41%	58%	36%	86%	68%
Cell phone	87%	96%	90%	96%	78%	93%	78%	94%	88%	96%
Internet	13%	71%	17%	77%	3%	53%	2%	60%	15%	75%
Sewage	22%	36%	30%	47%	1%	1%	11%	21%	25%	41%
Piped water	98%	99%	99%	99%	93%	95%	94%	97%	99%	99%
Bathroom	94%	98%	98%	99%	82%	94%	83%	95%	96%	99%
Kitchen	93%	98%	97%	99%	82%	93%	81%	92%	95%	99%
<b>Asset ownership</b>										
Own house	72%	73%	67%	68%	86%	86%	75%	76%	78%	75%
Car	34%	49%	37%	53%	20%	34%	10%	23%	39%	56%
Motorcycle	21%	16%	30%	13%	11%	25%	25%	20%	21%	14%

Source: World Bank calculations using data from HIES (2011-20).

### Determinants of poverty

**As poverty has increased, the profile of the poor has become more distinctive.** In comparing the household characteristics that correlate with poverty in 2011 and 2020, it becomes clear that, if anything, the determinant characteristics of poverty have become more important over time. Figure 31 illustrates whether given characteristics of households and household heads increase or decrease the likelihood that a household is poor. Values to the left of the dotted line indicate that the characteristic decreases the likelihood of a household being poor. Values to the right of the dotted line indicate that the characteristic increases the likelihood of being poor. The gap between the blue (2011) and red (2020) coefficients indicates the extent to which that probability has increased or decreased over the past decade. Visually, the regression results illustrate how many of the coefficient values have become more important over time.

**Figure 31: Regression on the characteristics of poor households**



*Note:* This figure depicts a linear probability model, which the dependent variable captures whether the household lives below the international poverty line of US\$6.85 per person per day in 2017 purchasing power parity terms. All explanatory variables were included in the model. Negative coefficients indicate that households with a given characteristic are less likely to be poor; positive coefficients indicate that households with those characteristics are more likely to be poor. Blue are coefficients for 2011, and red are coefficients for 2020.

*Source:* World Bank calculations using HIES data (2011-20).

## LOOKING FORWARD

**The analysis in this report outlines a dramatic increase in poverty in Iran, against the backdrop of a “lost decade” of economic growth.** Subject to on-again, off-again sanctions, swings in international oil prices, and the COVID-19 pandemic, the country saw its per-capita GDP contract by 0.6 percentage points each year, on average, over the past decade. Better management of volatile oil revenues and continued efforts to diversify may help mitigate the economic impact of these fluctuations in the future. Addressing the underlying drivers of inflation will also ensure that earnings are not eroded by increasing prices.

**The country has seen almost 10 million people slide into poverty, exacerbating social inequities.** Forty percent of Iranians are vulnerable to falling into poverty. The lack of growth offers a partial explanation for this dismal welfare trend, but it is not the whole story. Indeed, during Iran’s short period of economic expansion, poverty rates barely budged. The benefits of growth accrued to households in the top consumption quintiles while households in the bottom quintiles were left behind. There is also evidence of persistent structural inequities between rural and urban residents, men and women, and those with and without a secondary education. Looking forward, there is scope to address structural inequities in the country.

**Structural inequities mean that the top quintile of households benefit from periods of economic expansion while all lose when the economy contracts.** Though post-revolution the country established a strong social contract that addressed existing inequities, this contract has eroded over time. This asymmetry in economic prospects is reinforced by a large gender gap in terms of economic prospects, rural-urban inequities and large differences in educational attainment. Improving educational access and expanding employment opportunities outside of the volatile oil sector would help make periods of economic growth more inclusive.

**The poverty-alleviating effects of Iran’s social protection program are a testament to their effectiveness as a cushion against economic fluctuations but could be made more progressive.** Social transfers can provide a useful buffer, but only if they are well targeted and their value benchmarked to price levels, to keep pace with inflation. A large proportion of Iran’s social transfers in terms of spending are pensions. These are indexed to inflation and benefit more affluent households with older household heads. Direct cash transfers, which benefit 90 percent of households and which the poorest rely on most, have steadily eroded in value. Only a large top-up in the value of cash transfers between 2019 and 2020 prevented a further increase in poverty in the wake of COVID-19. This recent experience points to the value of a robust, and shock-responsive safety net benchmarked to inflation.

**Social Transfers need to be fiscally sustainable.** The fiscal burden of pay-as-you-go pensions will only grow as the population ages, and it is neither sustainable nor effective for nine tenths of the population to receive small cash-transfers. Better targeting and a shift to a contributory pension system might alleviate some of the fiscal pressure. In terms of revenue, the country has worked to increase its intake in terms of indirect taxation, which middle income countries rely on. Recent budget announcements include the imposition of a 20 percent tax on gasoline and petroleum products, an increase in value-added tax (VAT), and raising the full retirement age, all steps in this direction. While such flat taxes are not

progressive as such, they can finance targeted cash transfers to the poorest households, which would more than compensate for the burden imposed while creating fiscal space.

**A commitment to data transparency facilitates the response to adverse welfare trends.** Iran is one of the few countries in the MENA region that regularly collects and distributes publicly consumption and labor market surveys. The availability of annual welfare data has helped track the impact as the country transitioned from fuel subsidies to direct transfers, allowing for adjustments along the way. It can help underpin a shock-responsive social safety net, with targeted top-ups in response to increases in the cost of living. Reflecting an evolving society, the survey can be updated to better capture quality of services and other non-monetary measures of wellbeing.

**Helping farmers adapt to persistent drought and expanding opportunities for those seeking to transition out of agriculture will help keep the rural–urban gap from widening further.** Iran is particularly vulnerable to increases in drought and water scarcity due to Climate Change. This disproportionately affects those relying on agriculture in rural areas, contributing to an increased concentration of poverty. Poor, mostly rural regions have grown poorer, while urban centers like Tehran have experienced almost no increase in poverty. Closing the rural–urban gap means helping farmers adapt to the increasing severity and frequency of drought, notably by encouraging climate-smart, water-efficient, and regenerative agriculture. For those wishing to transition out of agriculture, economic opportunities can be created by improving education, facilitating migration to urban centers, and addressing the significant disparities between rural and urban areas in access to basic amenities like sewage infrastructure and access to the internet.

**Bringing women into the labor force will help address inequities and boost growth.** Women continue to face economic and institutional barriers to joining the labor force, and female-headed households are disproportionately likely to be poor. Female workers made gains up to 2018 but were the first to lose their jobs when the economic crisis hit, often reverting to roles as unpaid caregivers. Addressing the legal impediments to women joining the labor force would not only improve equity, but would also boost growth by increasing the pool of working adults contributing to the economy. This goes hand-in-hand with continuing to improve access to education. While significant progress has been made, a disproportionate share of the poorest households rely on a breadwinner with no formal education, often a woman.

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