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# Coming to Terms with Economic Sanctions on Iran

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The Economic Studies Unit

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For more than four decades, Iran has been subject to wide-ranging international sanctions, first by the United States in 1979 after the Islamic Revolution and the hostage crisis in Tehran. Ever since, Washington and its allies have steadily intensified economic and political pressure on Iran, ranging from punitive measures for the latter's alleged support for terrorism to the broad-based embargo targeting its nuclear programme. Iran has aimed to come to terms with this reality without acceding to it.

## 1. The Most Significant Sanctions on Iran

Since the 1979 Islamic Revolution, Iran has faced mounting pressure from the United States and Europe in the form of subjecting the country to successive economic, trade, and financial sanctions. The sanctions era began with the overthrow of Shah Mohammad Reza Pahlavi and the hostage crisis, then intensified in response to the Iran's nuclear programme and activities in the region. The main actions included restrictions on oil and banking, which have had a major impact on Iran's economy. Although the 2015 nuclear deal temporarily eased sanctions, they were reimposed following the US withdrawal from the agreement in 2018. Economic conditions deteriorated, leading to political unrest within the country.

### 1.1. 1979 Sanctions Package

After Iranian students took over the American Embassy in Tehran, the US froze Iranian assets and embargoed most commercial transactions. After the Islamic Revolution and the hostage crisis, during which 52 American nationals were held captive in the embassy, President Jimmy Carter issued Executive Order 12170 in November 1979, freezing \$12 billion in Iranian assets deposited in US banks.<sup>1</sup> This move, designed to deter any escalation, was simultaneously retaliatory and pre-emptive. The ensuing trade embargo effectively severed US-Iranian commercial ties with the exception of humanitarian materials. These early measures marked the beginning of a longstanding sanctions regime, which naturally becomes increasingly enmeshed with geopolitics and political economy. The crisis has driven Iran and the US into two opposing diplomatic camps that still determine the nature of the relationship to this day.

### 1.2. 1984 Sanctions

In response to Iran's support for militias like Hezbollah and its alleged involvement in regional confrontations (e.g. the 1983 bombing of US Marine Corps barracks in Lebanon), the administration of US President Ronald Reagan officially classified Iran as a state sponsor of terrorism.<sup>2</sup> This label entailed profound consequences per US law, automatically triggering bans on arms sales, foreign aid, and exports of dual-use technology. The classification paved the way for greater multilateral

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1 "Timeline: Sanctions on Iran", *Al Jazeera*, 17/10/2012, accessed on 22/6/2025, at: <https://acr.ps/1L9zRJk>

2 "International Sanctions on Iran", Council on Foreign Relations, accessed on 22/6/2025, at: <https://acr.ps/1L9zRHe>

pressure and Iran's stigmatization in global financial markets. It became the legal basis for subsequent US sanctions law and helped set forth the well-established narrative by which Iran is depicted as a global security threat.

### 1.3. 2006 Sanctions

Following Iran's resumption of uranium enrichment, the UN Security Council passed the first of a series of sanctions resolutions. After years of faltering negotiations and emerging evidence of resumed enrichment activities at Iran's Natanz facility, the Security Council unanimously passed Resolution 1737 in December 2006. This decision heralded the start of international sanctions, coordinated pursuant to Chapter VI of the UN Charter. It froze the assets of entities involved in Iran's nuclear and missile programmes and embargoed the movement of nuclear technologies and dual-use materials. Over the next four years, subsequent resolutions (1747, 1803, and 1929) widened the scope of the restrictions, precipitating Iran's increased isolation from the global financial system and pressuring the country to halt enrichment.<sup>3</sup> The resolutions reflected the international community's intention to reach consensus on non-proliferation and, as a result, shifted the sanctions framework from unilateral to multilateral legitimacy.

### 1.4. 2010-2012 Sanctions

Pressure mounted and new UN, EU, and US sanctions targeting Iran's petroleum and banking sectors emerged, with the sanctions regime intensified greatly between 2010 and 2012. Security Council Resolution 1929 (June 2010) imposed a comprehensive ban on weapons and encouraged member states to prohibit Iranian bank transactions related to nuclear proliferation. The US followed suit with the Comprehensive Iran Sanctions, Accountability, and Divestment Act (CISADA), which penalizes foreign corporations that conduct business with the Iranian energy sector. In 2012, the EU imposed an embargo on the importation, transport, and insurance of Iranian crude oil. These measures destroyed the Iranian economy, with oil exports – Iran's primary revenue source – sinking from 2.5 million barrels daily to less than a million by 2013.<sup>4</sup> At the same time, Iran's access to the Society for Worldwide Interbank Financial Telecommunication (SWIFT) was interrupted, making international trade almost impossible. This period saw global coordination on economic pressure reach its apex and demonstrated the effectiveness of multilateral sanctions.

### 1.5. The 2015 Joint Comprehensive Plan of Action

After prolonged negotiations, Iran and the P5+1 (United States, United Kingdom, France, Russia, Germany, and China) signed the Joint Comprehensive Plan of Action (JCPOA) in 2015. Under the deal, Iran agreed to reduce its supply of enriched uranium by 98%, disassemble centrifuges, and allow

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<sup>3</sup> "Timeline: Sanctions on Iran."

<sup>4</sup> Ibid.

the International Atomic Energy Agency (IAEA) to conduct thorough inspections, in exchange for the gradual reduction of sanctions. The US, EU, and UN suspended most sanctions related to the nuclear programme, allowing Iran to return to global energy markets and regain access to over \$100 billion in frozen assets.<sup>5</sup> The JCPOA has largely been regarded as a diplomatic success and a model for agreements to reduce sanctions in exchange for compliance. Still, non-nuclear sanctions (e.g. those related to terrorism, human rights, and ballistic missiles) remained in effect, which limited the depth of economic normalization.

## 1.6. 2018 "Maximum Pressure"

As part of the "Maximum Pressure" campaign, in May 2018 the Trump administration withdrew from the JCPOA, criticizing the plan for not addressing Iran's missile programme and regional interventions.<sup>6</sup> All US sanctions that had been lifted under the agreement were reimposed, alongside new classifications targeting Iran's central bank and its shipping and petrochemical sectors. The US began employing secondary sanctions to deter non-US entities from doing business with Iran, effectively isolating that country once again from most international financial systems. Though the EU and the UN have upheld their commitments according to the JCPOA, European corporations have largely withdrawn from Iran due to American threats. This step reignited much debate around the long-term efficacy and humanitarian impacts of unilateral sanctions. These sanctions remain pivotal for US strategy from 2025 onward; for Iran, they have brought about inflation, currency collapse, and economic difficulties in general.

# 2. Sanctions: An Exterior of Politics and Security, with a Socio-Economic Core

## 2.1. Agriculture: The Most Visible Facet of Sanctions

It might initially appear that sanctions have been directed at military industries and the banking sector that funds what the West claims to be terrorism. Readers might find it surprising to learn that among the most heavily impacted sectors is that of agriculture and the production of pistachios. Iran had always been the uncontested frontrunner in the production of pistachios worldwide. In 2009, the US displaced Iran from its status as the foremost pistachio producer. The pistachio market became a new front for economic warfare in the mid-1980s amid ongoing hostilities between the US and Iran. Iranian pistachios, known for their quality and competitive pricing, entered the American market during a brief period of legal trade, taking up around 42% of US pistachio imports by 1985. This influx alarmed local producers – especially as the pistachio industry in California was still in its infancy at the time – who successfully pushed for trade protection under the leadership of a domestic lobby

<sup>5</sup> Ashish Kumar Sen, "A Brief History of Sanctions on Iran," Atlantic Council, 14/7/2015, accessed on 22/6/2025, at: <https://acr.ps/1L9zRMa>

<sup>6</sup> "Trump: U.S. 'Will Withdraw' from Iran Nuclear Deal," *NPR*, 8/5/2018, accessed on 22/6/2025, at: <https://acr.ps/1L9zRsU>

consisting of the California Pistachio Commission and major corporations like Paramount Farms (now part of The Wonderful Company). In 1986, the US imposed a joint tariff of over 300% on Iranian unshelled pistachios, including countervailing duties at 99.5% and anti-dumping duties at 241.14%,<sup>7</sup> thereby effectively eliminating Iranian pistachios from the US market. These duties allowed the pistachio industry in California to flourish unchallenged: cultivated land grew rapidly, and output increased from 7,700 tonnes in 1979 to more than 500,000 tonnes by the late 2000s.<sup>8</sup> Thus the US eclipsed Iran as the world's largest producer of pistachios. Although from a technical point of view this issue is predicated on trade law, it blurred the lines between economic protectionism and anti-Iran American foreign policy at the time. In this connection emerges the role of domestic lobbying groups in shaping the dynamics of international trade and putting greater pressure on Iran, facilitating the reconfiguration of the global pistachio market in favour of the US and at Iran's expense.

Apart from pistachios, the agricultural sector in general has faced difficulties due to banking and trade restrictions and economic suffocation through export embargoes and limited access to modern equipment like advanced irrigation systems, fertilizers, insecticides, and enhanced seeds. This logistical blockade, which impacted the availability of refrigerated transportation and support from insurance companies, has restricted Iran's ability to export perishable goods.<sup>9</sup> All these circumstances have impeded the country's competitiveness in global agricultural food markets.

## 2.2. Pharmaceuticals under Sanctions

The pharmaceutical market has also been impacted by sanctions. Although drugs are included on the list of products not affected by sanctions, banking constraints and supply chain problems have led to disturbances in the market. Between 2022 and 2024, imported drug prices rose by between 15% and 150%; certain essential medications increased by 300%.<sup>10</sup> Patients were forced to skip doses, seek out medications on the black market, or go without them. Public health advocates state that shortages of chemotherapy and thalassaemia drugs have caused a significant increase in deaths since 2018.<sup>11</sup>

## 2.3. Destabilization of Leading Industries

Iran, once the largest car manufacturer in the Middle East and North Africa region, has seen its automotive industry decline sharply. Many companies, including Renault, Peugeot, and Daimler, have withdrawn from Iran and halted operations in compliance with sanctions, impeding access

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7 "Certain In-Shell (Raw) Pistachios From the Islamic Republic of Iran: Continuation of Antidumping Duty Order," Federal Register, 13/7/2017, accessed on 22/6/2025, at: <https://acr.ps/1L9zRmv>

8 "Pistachios: The Quirks of Agricultural Trade in a Nutshell," *Global Trade Magazine*, 14/4/2020, accessed on 22/6/2025, at: <https://acr.ps/1L9zRMn>

9 "Trump's Iran Gamble: Will 'Maximum Pressure' and COVID-19 Bring Tehran to the Bargaining Table?" *Time*, 27/3/2020, accessed on 22/6/2025, at: <https://acr.ps/1L9zSiV>

10 "Iran's Dire and Growing Drug Shortage," Stimson Center, 18/2/2025, accessed on 22/6/2025, at: <https://acr.ps/1L9zRO7>

11 "Iranians Struggle to Access Crucial Medicines as Sanctions Hit Supplies," *The Financial Times*, 10/8/2024, accessed on 22/6/2025, at: <https://acr.ps/1L9zS9R>

to replacement parts and electronics and depleting foreign investment. The result was a decline in domestic output from around 1.6 million units in 2011 to a mere 740,000 by 2013,<sup>12</sup> leading to an increase in prices domestically and a decline in production quality.

The sanctions have made it more difficult for Iran to obtain machines, replacement parts, and industrial raw materials, especially from the West and Japan. Supply chain interruptions led to project delays and cost overruns in the construction, mining, metal, and textile sectors. Frequent electrical outages related to the energy crisis put greater pressure on industrial operations; by May 2025, many factories were operating only at half capacity, incurring losses of nearly \$20 billion.<sup>13</sup>

Despite all these consequences and years of sanctions and economic isolation, the Iranian economy has endured. Whilst the sanctions have certainly posed deep structural and social challenges, Iran has avoided collapse by adopting a mixture of strategic policies that enabled it to adapt to the circumstances of sanctions. In the following section, we discuss the most important policies Iran has employed, especially within the "Economy of Resistance" framework, to alleviate the effect of sanctions and preserve stability and economic independence.

### 3. Ideological Foundations of the Economy of Resistance

The roots of the Economy of Resistance (EOR) lie in the revolutionary ethos of the Islamic Republic, namely independence and self-reliance. Since the 1979 revolution, Iranian leaders have regarded economic sovereignty as critical to resisting the hegemony of the Great Powers.<sup>14</sup> Supreme Leader Ayatollah Ali Khamenei officially set forth this concept in the 2010s, declaring the Western sanctions to be "total economic warfare" and urged Iran to "force the West to retreat" by constructing a sanctions-proof economy. In a 2014 proclamation, Khamenei defined the EOR concept as a comprehensive doctrine "to overcome all economic problems and defeat the enemy" waging an economic war.<sup>15</sup> This doctrine was not presented as a temporary solution to the sanctions, but as "an inspiring model of the Islamic economic system" – a local model for achieving "economic independence" and transforming Iran's economy from a weakness into a strength. Iranian officials describe the principle of economic independence as a long-term strategy to insulate the nation from foreign pressure whilst upholding revolutionary ideals. For instance, Khamenei's directive for the year 2014 (24 principles, under Article 110 of the Constitution of Iran) stressed the values of Islam and economic *jihad*, characterizing these efforts as a "holy struggle" for Iran's economic survival and advancement.<sup>16</sup> This ideological

12 "Iran: Two Years after the Lifting of International Sanctions," *BSt Europe*, 16/1/2018, accessed on 22/6/2025, at: <https://acr.ps/1L9zRZk>

13 Mohammad Taleghani & M.J. Sola, "Strategic Responses to Energy Instability: Supply Chain Management in Iran's Industrial Sector," *Archives of Humanities & Social Sciences Research*, vol. 2, no. 1 (25/3/2025), accessed on 22/6/2025, at: <https://acr.ps/1L9zROj>

14 Sina Emami, "Beyond Sanctions: The Resistance Economy as the Islamic Republic of Iran's Policy Discourse for Economic Independence," *Journal of World Sociopolitical Studies*, vol. 8, no. 1 (25/1/2024), accessed on 22/6/2025, at: <https://acr.ps/1L9zSgI>

15 Reuel Marc Gerecht & Ray Takeyh, "Ayatollah Khamenei's 'Resistance Economy'," Foundation for Defense of Democracies (FDD), 27/7/2022, accessed on 22/6/2025, at: <https://acr.ps/1L9zRHM>

16 Emami.



position is based on decades of speeches on self-reliance, spanning from wartime austerity in the 1980s to slogans such as "The Year of Economic Jihad" (2011) and "Economy of Resistance: Action and Implementation" (2016). The economy of resistance [and?] economic administration, at its core, frames part of Iran's broader resistance to Western hegemony to maintain its political autonomy and Islamic principles in the face of sanctions.

## 4. Key Pillars of the Economy of Resistance

Iran has implemented/activated a series of policies designed to strengthen domestic capacities and curtail the impact of sanctions. The mainstays of these policies are as follows:

### 4.1. Strengthening Domestic Production and Self-Reliance

Building up domestic industry and agriculture lies at the core of the EOR. Khamenei described domestic production as "the backbone" of the EOR. The policies focused on import substitution, i.e. replacing foreign (especially strategic) goods with Iranian-made products. For instance, Iran has invested heavily in petroleum refinement to end its reliance on imported petrol. The country rapidly expanded production after sanctions began targeting fuel imports. Between 2010 and 2011, Iran achieved self-sufficiency in petrol and increased from 44 million to 66 million litres per day.<sup>17</sup> The data reflect a 95% decline in petrol imports between 2007 and 2011 despite Iran's having opened new refineries and begun rationing subsidized fuel by restricting the quantity that citizens could obtain and raising fuel prices fourfold to reduce pressure on the subsidy system.<sup>18</sup> The Minister of Petroleum stated that Iranian workers "have proven their ability to counterbalance the sanctions with ease" by increasing output.<sup>19</sup> To achieve self-sufficiency in key sectors, similar import substitution campaigns have focused on other goods (e.g. wheat, vehicles, pharmaceuticals, military equipment). In 2019, Iran's Persian Gulf Star refinery became operational, allowing for the provision of petrol locally as well as the exportation of surplus fuel.<sup>20</sup>

### 4.2. Reforming the Subsidy System and Controlling Consumption

Since the 1980s, Iran has primarily relied on the subsidy system, allowing it to support citizens and reinforce the legitimacy of the regime. But the sustainability of this model amid sanctions has become very difficult. The elevated level of subsidization has encouraged wasteful consumption, making matters more precarious. In 2010, Iran carried out a bold plan to reform the subsidy system, first by gradually doing away with the subsidization of petrol, electricity, and bread and replacing it with targeted cash payments. Petrol prices quadrupled and a quota system went into effect, leading

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<sup>17</sup> "Iran Self-Sufficient in Gasoline, Oil Minister Tells State TV," *Reuters*, 13/2/2019, accessed on 22/6/2025, at: <https://acr.ps/1L9zRnJ>

<sup>18</sup> "Iran Gasoline Import Slump Softens Sanctions Blow," *Reuters*, 18/10/2011, accessed on 22/6/2025, at: <https://acr.ps/1L9zRyM>

<sup>19</sup> Ibid.

<sup>20</sup> Farzin Nadimi, "Iran Plans to Make Its Oil Industry More Resilient," Washington Institute, 11/12/2018, accessed on 22/6/2025, at: <https://acr.ps/1L9zROX>

to a drop in consumption (as well as an increase in supplies) from 76 million litres per day in 2006 to around 60 million by 2011.<sup>21</sup> This reduced the danger of Iran losing access to fuel if it were dependent on imports. Khamenei's 2014 directives called for the use of a "subsidy redistribution programme" to promote production and justice. In practice, Iranian officials increased fuel and utility prices periodically (e.g. in 2014 and 2019) and banned the importation of luxury or non-essential goods to preserve foreign currency [reserves]. Nevertheless, the process of reforming the subsidy system remains sensitive, as attempts to reduce energy subsidies have been met with public backlash and even rioting (e.g. in 2019). By 2020, energy subsidies still amounted to \$75-80 billion (among the highest figures worldwide),<sup>22</sup> showcasing the political challenge of balancing austerity and social stability. Even so, the EOR narrative justifies reducing subsidies as a means of financing domestic industry and "immunizing" the budget against revenue instability due to sanctions.

#### 4.3. Looking for New Friends and Entering New Markets

Reducing reliance on Western trade is the cornerstone of the EOR. As part of this strategy, Iran has sought to expand its export markets and gain more trading partners, with emphasis on neighbouring states and Asian economies, to take on the Euro-American sanctions. Khamenei's plan openly calls for "the development of markets in neighbouring countries and greater exports of products difficult to sanction." In practice, as sanctions intensified Iran redirected its trade away from Europe and turned to China, Russia, and regional partners.<sup>23</sup> By the mid-2000s, China had become the largest buyer of Iranian oil and Iran's top trading partner, and Iran had strengthened economic ties with Turkey, India, and nearby states (e.g. Iraq, Afghanistan, Pakistan) to maintain export levels. For instance, after the European oil embargo of 2012, Iran offered discounted oil to Asian buyers (e.g. China, India, South Korea) and arranged barter deals (i.e. oil for goods or local currencies).<sup>24</sup>

#### 4.4. Bartering as a Way to Overcome Hard Currency Shortages

Bartering and currency exchange have become an effective approach to trade as banking sanctions intensified and it became harder to pay in dollars. The World Bank notes that "under sanctions, [...] bilateral currency exchange, barter, and other indirect payment channels are increasingly used to settle international transactions", allowing trade to continue despite difficulties in accessing international financial networks. Regionally, Iran has joined multilateral frameworks that exclude the West. For instance, Iran obtained observer status in the Shanghai Cooperation Organisation (SCO) and the Eurasian Economic Union (EAEU) to facilitate non-Western trade. The Iran-China 25-year Cooperation Program, adopted in 2021, and expanded energy cooperation with Russia are part of an "Eastward" strategy. By diversifying export outlets and partners, Iran aims to diminish the

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<sup>21</sup> "Iran Gasoline Import Slump Softens Sanctions Blow."

<sup>22</sup> Nikolay Kozhanov, "Improving Iran's Ailing Economy Will Be Raisi's Priority," *Al Jazeera*, 12/7/2021, accessed on 22/6/2025, at: <https://acr.ps/1L9zRMe>

<sup>23</sup> "Islamic Republic of Iran," World Bank, accessed on 22/6/2025, at: <https://acr.ps/1L9zRp3>

<sup>24</sup> Ibid.

effectiveness of the sanctions. Iranian officials argue as follows: if the US can restrict trade with the West, so too can Iran find buyers and suppliers in a vast Asian and regional market. Despite increasing American pressure between 2018 and 2020, Iran actually continued to sell oil (largely in secret) to states including China; shipped fuel to states including Venezuela and Afghanistan; and reinforced non-oil exports (e.g. petrochemicals) through the Middle East and Asia. These policies have reduced Iran's economic isolation: by 2014, its non-oil exports reached \$40 billion per annum (a 20% annual increase) even as oil exports plunged.<sup>25</sup> Though sanctions continue to have an impact, Iran's turn to the East and the region has come to characterize its approach to economic resistance.

#### 4.5. Banking Instruments and Channels

The international sanctions took aim at Iran's ability to access the global financial system: Iranian banks were expelled from SWIFT and Iranian foreign assets were frozen. To preserve its financial resilience and monetary independence, Iran has worked to maintain multiple currency reserves. From time to time, the Central Bank of Iran has intensified foreign exchange regulations, established alternative payment channels, and promoted trade over transactions in currencies other than the US dollar. Iran has negotiated trade adjustment agreements in local currency (e.g. selling oil to India in exchange for rupees, yuan accounts with China) and taken recourse to informal networks and exchange bureaus to circumvent banking barriers. Domestically, the policy of restructuring resources calls for "reforming and reinforcing the financial system [...] and stabilizing the national economy".<sup>26</sup> This includes efforts to strengthen bank capital, develop domestic capital markets, and reduce dependence on foreign credit. It is worth mentioning that Khamenei's directives urged against integration with the Western financial system, seen as a weakness, and instead promoted an "independent, resilient" financial infrastructure.<sup>27</sup>

Iran has broadened its domestic electronic payment system (SEPAM) and established banking ties with Russian and Chinese systems to circumvent SWIFT. Exchange rates have been used as a tool: the Iranian rial was allowed to fall sharply under sanctions (losing over 80% of its value between 2018 and 2020),<sup>28</sup> making it easier to restrict imports and make Iranian non-oil exports more competitive internationally. Simultaneously, the state imposed import restrictions and supported a cheaper exchange rate for goods essential to managing inflation. In short, the financial strategy for exchange rates combined defensive measures (capital regulations, evading sanctions in the banking sector, etc.) with efforts to leverage monetary policy to strengthen exports and stabilize the budget (e.g. increasing the revenue share of taxes and non-oil exports). In 2019, the government was tasked

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<sup>25</sup> Ali Akbar Dareini, "Khamenei Orders Creation of 'Economy of Resistance'," *The Times of Israel* (AP), 19/2/2014, accessed on 22/6/2025, at: <https://acr.ps/1L9zRNc>

<sup>26</sup> "Ayatollah Khamenei Announces General Policies on the Economy of Resistance," *English Khamenei.ir*, 18/2/2014, accessed on 22/6/2025, at: <https://acr.ps/1L9zRZL>

<sup>27</sup> Amir Toumaj, "Iran's Economy of Resistance: Implications for Future Sanctions," Critical Threats Project, 17/11/2014, accessed on 22/6/2025, at: <https://acr.ps/1L9zRVI>

<sup>28</sup> "Islamic Republic of Iran."

with consistently collecting national development fund (i.e. sovereign wealth fund) reserves of oil revenue and working toward "total independence from oil revenues" in the budget.

#### 4.6. Knowledge Economy and Technology Investment

Iran's EOR is particularly notable for its efforts to develop high-tech domestic industries and a knowledge economy, as Iranian leaders see scientific advancement as a tool to break sanctions and a key pillar of the development model. As part of the knowledge economy blueprint, the state commits to expanding and exporting products in this sector, alongside other sectors based on advanced technology and innovation. This orientation has been implemented through major investments in education, research and development, and strategic technologies. For the most part, this has happened out of necessity due to the withdrawal of foreign corporations. Under sanctions, Iran has accelerated its nuclear and ballistic missile programmes by relying on local engineers, developed a flourishing cyber industry, and sponsored domestic equipment manufacturing. The government has established numerous science parks and tech incubators and provided funding for knowledge-based firms to promote domestic innovation. It should be noted that the critical technology and defence sectors in Iran have achieved a degree of self-reliance (e.g. the production of COVID-19 vaccines internally, export of drones and satellites, etc.) in periods of isolation.

Khamenei placed the knowledge economy within the forward-looking vision of the EOR, making Iran a regional pioneer in science and technology despite the sanctions. The sixth five-year development plan (2016-2021) placed emphasis on "the development of a resilient economy [and] progress in science and technology".<sup>29</sup> By promoting technological self-sufficiency, Iran has aimed to close the gaps left behind by sanctions (e.g. developing an intranet and local applications, following the ban on American technology) and to create new export opportunities independently of the oil embargo. Despite these efforts, many challenges have beset the technological development plan on account of limited access to global markets and investment. Still, there have been clear signs of success: by 2022, knowledge- and tech-based products and services accounted for a growing share of Iran's non-oil exports, and sectors such as information and space technology and medical equipment have greatly expanded under the EOR policies.

#### 4.7. Cutting Down on Imports and Achieving Food and Energy Security

The state has prioritized the provision of basic needs (i.e. food and energy) under blockade-like conditions. The economic strategy includes an agricultural self-sufficiency programme, domestic energy security, and stockpiling essential materials. Khamenei's 24-point directive stressed "increasing domestic production of essential goods" (especially those heavily imported) and guaranteeing "food and drug security" via strategic reserves and local production.<sup>30</sup> In practice, Iran

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<sup>29</sup> Anthony H. Cordesman, "The Crisis in Iran: What Now?" Center for Strategic and International Studies (CSIS), 11/1/2018, accessed on 22/6/2025, at: <https://acr.ps/1L9zSm8>

<sup>30</sup> "Ayatollah Khamenei Announces General Policies on the Economy of Resistance."

has drawn up plans to achieve self-sufficiency in essential foodstuffs (having achieved a positive balance of trade for wheat in 2016) by subsidizing crops and raising prices. Iran expanded into vegetable oil refinement and dairy production domestically to reduce import volumes and costs. To reduce the burden of external shocks, Iran has developed emergency reserves; for instance, in 2018 it established large repositories for grain and petroleum products. A 2018 study indicated that Iran has been creating a "strategic storage network" for oil, gas, and refined fuel (to provide reserves for 50 - 60 days of domestic consumption) as a safeguard against export disruptions.<sup>31</sup> The country's experience of drug shortages due to banking sanctions has motivated efforts to reinforce this sector and maintain a stockpile of essential drugs.

## 5. Iran's Strategy for Dealing with Successive Waves of Sanctions

Iran's economy of resistance developed in ongoing response to waves of sanctions from the 1990s to 2025, with new coping mechanisms being devised with each wave.

### 5.1. The First Sanction Waves in the Early 1990s

The US-imposed embargo on the Iranian oil industry in the mid-1990s was a harbinger of danger. At the time, Iran began diversifying its economic partners by inviting Russian and Asian companies to invest and redirecting oil exports to other markets like China. In the late 1990s, President Khatami promoted the idea of the "resilient economy" (albeit not yet known by that name) by reducing reliance on oil. Iran's third five-year development plan (2000-2005) set out to stimulate the non-oil sector and increase non-oil exports to mitigate the dangers of sanctions. A preliminary ideological framework was thereby inaugurated: in 2002, Supreme Leader Khamenei cautioned that reliance on oil revenues is a strategic weakness and called for the development of a "culture of resistance" in the economy. In this way, the principles of the EOR (even before the term was coined) had begun to crystallize in notions of self-sufficiency, eastern-oriented trade, and nationalization.

### 5.2. US-UN Sanctions, 2006 - 2010

Sanctions related to the nuclear programme, beginning in 2006, marked a turning point. UN resolutions (2006, 2007, 2008) restricted access to certain financial technologies and channels, whilst American measures deepened banking restrictions and took aim at Iranian petrol imports. Iran's response was twofold, encompassing structural reforms and conceptual development. Structurally, Iran moved quickly to remedy its most significant weakness: importing petrol. In 2007, petrol rationing was implemented country-wide and Iran invested in refineries. In 2010, faced with a petrol embargo imposed by the EU, Iran announced that it had achieved self-sufficiency in fuel. It began redirecting trade to other routes (e.g. using Dubai-based companies and, subsequently, Turkish gold dealers to make oil sales). Khamenei's rhetoric on the notion of economic *jihād* ramped

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31 Nadimi.

up during this period. He used the term "economy of resistance" for the first time in 2011 as sanctions impacted the Central Bank of Iran. Khamenei depicted the sanctions as part of an American soft war against Iran's Islamic regime. By the time of the 2013 nuclear negotiations, Iran had developed a plan for dealing with sanctions, even in the event they were increased.

### 5.3. Oil Embargo and the Banking System Freeze, 2012 - 2015

Though the years following the 2012 EU oil embargo were very difficult in economic terms, they also validated Iran's reorientation. Iran reacted to the loss of half of its oil revenues by focusing more and more on diversifying its economy. It used its oil stabilization fund, then the national development fund, to finance essential imports and support the currency. Subsidy reforms (launched in 2010) were accelerated to reduce financial pressure; for instance, cash assistance replaced comprehensive fuel subsidies to alleviate the burden on the state's budget whilst supporting the country's poorest families. In terms of trade, Iran continued working with some economic partners, granting China and India long-term supply contracts (at times with deferred payments) and facilitating trade with its neighbours (Iraq and Afghanistan) by drawing on political and ethnic ties. The concept of the EOR found an institutional foothold at this juncture; a "headquarters for the EOR" was reportedly constructed under the supervision of the vice president to coordinate efforts between ministries, and progress toward achieving the EOR's objectives became a criterion for government planning. When the 2013 temporary nuclear deal eased sanctions slightly, President Hassan Rouhani asserted that Iran would continue to strengthen "its resilient economy" so as not to be at the mercy of foreign powers yet again.<sup>32</sup>

### 5.4. The 2018 US Withdrawal from the JCPOA

The Trump Administration's re-imposition of comprehensive sanctions in 2018 has been the greatest test of Iran's EOR to date. Many officials described Iran's strategy at that juncture as "a continuation in the same way, but harsher". In late 2018, as oil exports dropped again, the government publicly adopted a "three-pronged strategy" to take on the sanctions: (1) creating alternative export outlets (e.g. regional smuggling, private brokers, covert oil shipping techniques); (2) increasing domestic production of fuel and other exportable commodities; and (3) establishing strategic reserves to overcome shocks. Iran has accelerated its plans to achieve full self-sufficiency in petrol, with the Persian Gulf Star refinery having reached its third stage in 2019.<sup>33</sup> Iran expanded its output of petrochemicals and encouraged petrochemical companies and metal exporters to bring in foreign currencies to recoup its loss of oil dollars. The Central Bank narrowed the scope of its import allocations to essential goods only, causing the rial to lose value sharply on the open market (which, paradoxically, has bolstered the competitiveness of non-oil exports).<sup>34</sup> Meanwhile, Iran has strengthened ties with other sanctioned states. An important development is the "diplomacy of

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<sup>32</sup> Dareini.

<sup>33</sup> Nadimi.

<sup>34</sup> "Islamic Republic of Iran."



exchange" that Iran adopted with states like Syria and Venezuela, substituting its surplus fuel and technical expertise for gold or other necessary materials. The government has turned to the East in a more institutional manner, having put the final touches on the 25-year roadmap for cooperation with China (with the promise of Chinese investments in energy and infrastructure) and fast-tracked full SCO membership. In the region, Iran entered into a free trade agreement with the EAEU in 2019 to open up new markets to Iranian goods.

These measures show how the EOR has transformed in the face of extreme pressures. Iran has proceeded with "expanding cooperation with regional and non-aligned states" to sidestep Western restrictions. Domestically, 2019 and 2020 were dubbed "the Year of the Production Boom" and "the Year of the Production Leap", respectively, heralding sweeping efforts to reinvigorate embargoed domestic industry. A clear example of this is how Iranian automakers turned to local suppliers and Chinese replacement parts when the sanctions disrupted the availability of parts for European cars, thereby preventing vehicle production from collapsing entirely. In response to the aircraft sales embargo, the Iranian aviation sector likewise resorted to reducing spare parts and developing local maintenance capacities to preserve aircraft functionality. By 2020, Iran's oil exports had shrunk to a fraction of pre-sanction levels whilst non-oil exports (especially to neighbouring states) rose, and the economy adapted itself to a more resilient "new normal". It should be noted that Iran's GDP stopped shrinking after 2019, registering slight growth in 2020 (+1.5% according to the IMF) despite sanctions and the COVID-19 pandemic.<sup>35</sup>

## 6. The Effectiveness of Iran's New Economic Orientation, Between Isolation and Development

After more than four decades of sanctions and "resistance economy" policies, Iran has managed to strengthen its economic resilience in the face of a blockade imposed by some of the world's largest economies. Iranian officials point out that despite unprecedented sanctions, including the near-total oil embargo of 2018-2020, the country has avoided the economic freefall that could lead to its political collapse. The resistance economy model has allowed it to withstand this pressure, as demonstrated by the fact that the economy has continued to function and the population's basic needs have largely been met. By 2022 or 2023, Iran had adapted to the new reality. Domestic petrol production eliminated a major pressure point, and diverse non-oil export industries (from petrochemicals to food products) had emerged, bringing in foreign currency at a time of shrinking oil revenues. Furthermore, Iran's pursuit of alternative trade channels has meant that sanctions have not completely isolated it. For example, it has consistently maintained export relations with several major economies (China, India, Türkiye, etc.), undermining the effectiveness of US measures. From a national security perspective, Iran's economic policies have mitigated the severity of sanctions: Iran has not met Western demands such as decisively dismantling its nuclear programme, suggesting that it has developed a form of economic immunity.

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<sup>35</sup> Kozhanov.

That said, Iran has paid a heavy price due to its isolation. The resistance economy's achievements in bringing about stability have come at the expense of growth and public welfare. By prioritizing the regime's resilience and strategic projects, the Iranian leadership has often neglected other economic problems, or even exacerbated them. Let us summarize some of these economic challenges.

## 6.1. GDP Contraction

Iran's real GDP contracted, in cumulative terms, by approximately 12.8% in 2018 - 2019.<sup>36</sup> The International Monetary Fund (IMF) has estimated that it declined by 3.9% in 2018, followed by a 6% decline in 2019.<sup>37</sup> By late 2019, Iran's economy was about 10% smaller than it had been two years earlier, according to World Bank data.<sup>38</sup> Oil exports, crucial to the Iranian economy, had fallen from 2.5 million barrels per day before sanctions to less than 0.4 million bpd by 2019, sparking a recession.<sup>39</sup> Even after periods of modest recovery (for example, 3.4% growth in 2020 amid some sanctions evasion), Iran's GDP in 2021 remained well below its level in 2017, suggesting it had lost years of opportunities for growth.<sup>40</sup>

## 6.2. High Inflation and Currency Collapse

International sanctions and deficit financing led to a massive wave of inflation throughout the 2010s and 2020s. Consumer prices rose by more than 30% annually in the late 2000s, peaking at more than 37% in 2019.<sup>41</sup> The exchange value of the rial collapsed (from approximately 37,000 Iranian rials to the US dollar in 2015 to over 120,000 by mid-2019),<sup>42</sup> causing further price increases. Inflation remained acute throughout 2021-2023, at between 43-45%,<sup>43</sup> eroding household purchasing power. This persistently high inflation, comparable to wartime levels, was a reflection both of sanctions (which have disrupted imports and raised costs) and of economic policies. The collapse of the currency and rising prices of imported goods (including medicine and food) have left their mark on daily life.

## 6.3. Unemployment and Workforce Challenges

The economic recession has kept unemployment in double digits, with particularly severe impacts on young people and women. Overall unemployment ranged between 14% and 16% in 2018 - 2020.<sup>44</sup> Youth unemployment is around 23-24%, meaning nearly a quarter of young Iranians are unemployed.<sup>45</sup>

<sup>36</sup> Dalga Khatinoglu, "Iran's GDP Growth Report – Much Ado About Nothing," *Iran International*, 11/1/2022, accessed on 22/6/2025, at: <https://acr.ps/1L9zSiS>.

<sup>37</sup> Dalga Khatinoglu, "World Bank and IMF more Pessimistic about Iran's Economy," *Radio Farda*, accessed on 22/6/2025, at: <https://acr.ps/1L9zRDu>.

<sup>38</sup> "Iran Economy to Shrink 9.5% This Year Amid Tighter U.S. Sanctions, Says IMF," *Reuters*, 16/10/2019, accessed on 22/6/2025, at: <https://acr.ps/1L9zRBy>.

<sup>39</sup> "Iran Set to Fall Deeper Into Recession Amid Tension and Sanctions," *Al Jazeera*, 15/1/2020, accessed on 22/6/2025, at: <https://acr.ps/1L9zRXx>.

<sup>40</sup> Khatinoglu, "Iran's GDP Growth Report."

<sup>41</sup> Khatinoglu, "World Bank and IMF more Pessimistic."

<sup>42</sup> "Iranians Say US Sanctions Blocking Life-Saving Medicine," *Al Jazeera*, 30/7/2019, accessed on 22/6/2025, at: <https://acr.ps/1L9zSIV>.

<sup>43</sup> "Iran Inflation Rate | Historical Chart & Data," *Macrotrends*, accessed on 22/6/2025, at: <https://acr.ps/1L9zRw9>.

<sup>44</sup> Khatinoglu, "World Bank and IMF more Pessimistic."

<sup>45</sup> "Iran Youth Unemployment Rate," *Macrotrends*, accessed on 22/6/2025, at: <https://acr.ps/1L9zRnO>.



Many educated young people struggle to find work that matches their skills, leading to long periods of job hunting. Women's economic participation remains among the lowest in the world, exacerbated by the economic recession. Only 13-15% of Iranian women are in the labour force, barely a third of the global average.<sup>46</sup> This underuse of the talents of Iranian women and young people represents a hidden toll on Iran's growth potential.

## 6.4. Rising Poverty

Sanctions and inflation have pushed millions of Iranians below the poverty line. World Bank data shows that poverty rose sharply in the late 2000s; the percentage of Iranians living below the Bank's daily poverty line for upper middle-income countries (\$6.85 2017 PPP per day) jumped from around 22% in 2018 to 27% in 2019.<sup>47</sup> This five-point increase in a single year was the result of a severe economic recession and tightening sanctions. By 2019, about 27% of the population was living in poverty, a figure that rose still further during the COVID-19 pandemic (to more than a third of the population, by some measures). Moreover, inequality has worsened. Iran's Gini coefficient—a measure of inequality—rose to about 0.409 in 2019, indicating a wide income gap. The poorest 40% of the population saw their consumption decline faster than the overall rate, reflecting the disproportionate impact of the economic crisis on the poorest Iranians.<sup>48</sup> Rapid inflation has eroded real income and the value of remittances, severely impacting low-income households. While Iran's situation is not deteriorating, its poverty trends are alarming for a non-war economy.

## 6.5. Stalling Investment and Declining Productivity

Years of sanctions have undermined Iranian investment and productivity, which are the basis for long-term growth. The government, struggling with declining oil revenues, has cut development spending and public investment in infrastructure. For example, in light of a 40% drop in oil revenues, the 2020 budget resorted to bond sales and privatization of state assets to fill the gaps,<sup>49</sup> meaning fewer resources for new public projects. An IMF study noted that Iran suffered from "weak growth and low public investment," with infrastructure investment falling by nearly half since 2012.<sup>50</sup> Many infrastructure projects have stalled or been delayed due to a lack of financing. The private sector has also struggled to grow. By some estimates, real private businesses represent only about 10-12% of the Iranian economy, due to the dominance of large *bonyad* charitable foundations and state-linked companies.<sup>51</sup> Sanctions have exacerbated the problems of private businesses by cutting off trade financing and foreign investment. As a result, productivity growth has also been weak. Industrial

46 "Iran, Islamic Rep. – Labor Force Participation Rate by Sex (% of Population Ages 15–64)," World Bank, Gender Data Portal, accessed on 22/6/2025, at: <https://acr.ps/1L9zSpp>.

47 "Global Poverty & Equity Brief: Islamic Republic of Iran," World Bank, Poverty & Equity, April 2023, accessed on 22/6/2025, at: <https://acr.ps/1L9zRYb>.

48 Ibid.

49 Al Jazeera, "Iran Set to Fall Deeper."

50 Amir Sadeghi, "How Public Investment Could Help Strengthen Iran's Growth Potential: Issues and Options," IMF Working Paper No. 18/129, 08/6/2018, accessed on 22/6/2025, at: <https://acr.ps/1L9zRvn>.

51 Bijan Khajepour, "How Iranian-style 'Privatization' Stunts the Real Private Sector," *Amwaj.media*, 13/2/2025, accessed on 22/6/2025, at: <https://acr.ps/1L9zS44>.

production has declined sharply under sanctions (industrial value added fell by about 9% in 2018 and a further 9.7% in 2019). Businesses were forced to resort to costly trade alternatives, such as the use of intermediaries, which increased import costs by about 40% and slashed efficiency.<sup>52</sup> Iran's total factor productivity (TFP) was already low and has likely worsened due to its technological isolation and the exodus of its skilled workers.

## 7. Conclusion

It is clear that many of the gains of Iran's resistance economy have amounted to containment rather than wealth generation. For example, developing backup energy sources may help the country to refine its oil or maintain large stockpiles in times of crisis, but they fall short of the optimal economic optimum required in normal times. While protectionist policies have guarded domestic producers against international competition, they have also led to inefficiencies; for some goods, Iranian consumers face higher prices and only have access to lower quality goods due to import bans and domestic monopolies. The rise in non-oil exports (to about \$40 billion by the early 2020s)<sup>53</sup> was encouraging. However, many of these exports were low-value products or raw materials (such as petrochemicals, metals, and agricultural commodities), not the high-tech manufactured exports that drive advanced economies.

Iran's resistance economy, from the 1990s to 2025, offered an effective strategy for surviving sanctions, but it did not save the country from social hardship. While Iran did not collapse under the weight of sanctions, ordinary citizens have footed much of the bill. This economic model had some notable successes, including a more diversified trade network, greater self-sufficiency in fuel and food, and a resilient financial system, less vulnerable to external shocks. These successes have helped Iran withstand international pressure campaigns. At the same time, the costs have been clearly evident in a decade of lost growth, high inflation, and technological stagnation in many industries.

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<sup>52</sup> "Iran's Private Sector: Stuck in the Middle," Atlantic Council, 15/5/2018, accessed on 22/6/2025, at: <https://acr.ps/1L9zSo5>.

<sup>53</sup> Dareini.

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