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Challenges for Food Subsidy Reform

Lessons Learnt from the Just Distribution of Subsidies Scheme in Iran

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Abstract

While there is increasing consensus in the academic debate on the regressive nature of energy subsidies and the necessity to reduce them, this is much less so for food subsidy reforms – not least because of the positive impact of food subsidies for food security. They make food affordable even for lower-income households, and therefore they are often important for the well-being of this group. In addition, food subsidy reforms can be designed in different ways and have quite different effects. Badly designed programmes may cause more harm than good. Many countries in the world, including in the MENA region, struggle thus with the question of whether, and under which conditions, it is recommendable to reduce food subsidies.

This discussion paper examines the most recent experience of food subsidy reform in Iran in order to derive some lessons for food subsidy reforms elsewhere. Iran has a long history of providing general commodity subsidies, including for energy and food items, and it has attempted several waves of subsidy reforms in the past three decades, most notably in 2010 (energy and bread) and 2019 (petrol), whereby it established a nationwide direct cash transfer system. However, given the political and economic circumstances, subsequent administrations have returned to different kinds of consumer subsidies, which have required further reforms. The most recent form of food subsidy was the preferential foreign exchange rate (PFER) policy, which allocated about US$100 billion of the government's foreign exchange reserves with a fixed rate (far below the market rate) – during the four years following the unilateral withdrawal of United States from the Iran nuclear deal in 2018 – to import food and other basic commodities. Finally, the Raisi administration abolished the PFER policy in May 2022 and started to redistribute what it saved from the consumer subsidy cuts through the Just Distribution of Subsidies Scheme (JDSS), which is actually a targeted direct cash transfer scheme.

The main question of this discussion paper is: Under which conditions is a reduction or full elimination of food subsidies recommendable, given the experiences of Iran with its most recent reform (the replacement of consumer subsidies by targeted direct cash transfers paid out by the JDSS), and what challenges might such a reform entail? A secondary analysis of national data on "household expenditures" and "price index" is used to calculate future changes in household living expenditures in the short and medium terms, and to determine winners and losers of the new policy. Moreover, a thematic analysis of published contents (interviews, columns, articles and public speeches) about the scheme from key experts – before and after the launch of the scheme – is used to map out various aspects of the successes and failures of the scheme.

Our findings indicate that the way food subsidy reforms are designed and at what moment they are implemented matter a lot with regard to their effects. In the Iranian case, several factors could undermine the success of the recent food subsidy reform. First, ignoring the framework conditions of reform – including both international and domestic factors (such as economic instability, diminishing vertical trust, a lack of smooth foreign relations, budget deficit and low standards of good governance) – can jeopardise the reform or nullify its effects. Second, the lack of an "indexation element" (for the level of cash transfers) in an environment of continually increasing inflation and currency devaluation lead to a rapid decline in the purchasing power of cash transfers. Third, implementation shortcomings, such as targeting errors (due to weaknesses of the Iranians' Welfare Database), delivery deviations and a lack of transparency, lead to serious levels of mistrust. Ultimately, all of the above-mentioned challenges in the design and implementation of the scheme seem to hamper its objectives with regard to food security, poverty reduction, promotion of income equality and the abolition of corruption.

As a consequence we recommend that policy-makers (i) bear in mind the effect of national and international framework conditions (such as uneven international relations, economic situation, high inflation, diminishing vertical trust and chronic budget deficits) on the possible success of the reform; (ii) consider prioritising other, more urgent economic reforms (such as reforming the

budgeting, banking and taxation systems) instead of reforming food subsides, which may be vital for the food security of the lowest income groups of the population; (iii) set an “indexation element” in the scheme and raise the cash amount and/or provide a fixed package of food items in a timely manner; (iv) control for possible targeting errors in the compensation element of the food subsidy reform before launching the scheme and during its implementation; and (v) make sure that any scheme that is meant to compensate for the subsidy cuts, such as a direct cash transfer scheme, is well-embedded in the overall social protection system of the country.

Keywords: Subsidy reform, food subsidy, cash transfer, redistribution, inflation, Iran.

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Abbreviations

CIPP	context, input, process and product
GDP	gross domestic product
ICT	information and communication technology
IMF	International Monetary Fund
IWD	Iranians' Welfare Database
JCPOA	Joint Comprehensive Plan of Action
JDSS	Just Distribution of Subsidies Scheme
MENA	Middle East and North Africa
PFER	preferential foreign exchange rate
PPP	purchasing power parity
UCT	universal cash transfer
WMA	weighted moving average

1 Introduction

Although there is less controversy about the regressive nature of energy subsidies, and hence the necessity for reform, there may be less consensus with regard to food subsidy reforms because of their importance for food security. Food subsidies make the purchase of food affordable, even for lower-income groups, and therefore they are often are important factor for the well-being of the people in these groups. In addition, food subsidy reforms can be designed in different ways, and therefore have quite different effects. Badly designed programmes may lead to more harm than good. The question is, thus: Under which conditions is it recommendable to reduce, or even eliminate, food subsidies?

Iran is an interesting case for investigating this question. Like other countries in the Middle East and North Africa (MENA) region, it has a long-standing record of providing general commodity subsidies, including for food items, and it has had several waves of subsidy reforms in the past two decades. Historical trends show that reforming general subsidies is a major policy challenge. The International Monetary Fund (IMF) estimates that pre-tax energy subsidies in the MENA region amounted to US$237 billion in 2011, which is equivalent to 48 per cent of all subsidy spending globally, 8.6 per cent of regional gross domestic product (GDP) or 22 per cent of government revenue in the region (Sdralevich, Sab, Zouhar, & Albertin, 2014). More recent studies show that the region has maintained its leading rank in the world in this regard, despite several subsidy reforms in the past decade in various countries across the region. Parry, Black and Vernon (2021) suggest that explicit subsidies are still mostly concentrated in the MENA region and in the Commonwealth of Independent States, accounting for 33 and 21 per cent of subsidy spending globally in 2020, respectively. According to the authors, just 8 per cent of subsidy spending globally in 2020 reflects undercharging for supply costs (explicit subsidies) and 92 per cent relates to undercharging for environmental costs and foregone consumption taxes (implicit or hidden subsidies). Although food subsidies are generally less costly than fuel and electricity subsidies (less than 1 per cent of GDP in nine countries), countries such as Algeria, Syria and Egypt still spend more than 2 per cent of their GDPs on food subsidies, while Iraq spends 3.5 per cent of GDP (Sdralevich et al., 2014).

The International Energy Agency (2021) has estimated that energy subsidies in Iran account for 14 per cent of GDP (market exchange rate), which means that the country ranks second in the world, behind Russia. A report by the Iranian Parliament Research Center (2019) estimates that there was between US$55 and US$68 billion of implicit subsidies in the Iranian economy in 2018 based on different assumptions. Similarly, a report by the Planning and Budget Organization (2021) states that an annual amount of about US$60 billion was allocated for energy subsidies from 2019 to 2021.[1] Justifying the most recent phase of subsidy reforms in the country, the Chief Executive of the Planning and Budget Organization declared that US$100 billion is spent per year on energy subsidies, and US$20 billion on subsidies for basic commodities, including food and medicine (100 billion dollars, 2022). Although most of the declared energy subsidies can be regarded as “hidden”,[2] the subsidies for food and other basic commodities in recent years are attributed to the preferential foreign exchange rate (PFER) policy, which cost the government about US$100 billion of its foreign exchange reserves – for four years following the unilateral withdrawal of the United States from the Iran nuclear deal in 2018 – to import those

1 The price gap between domestic energy prices and the Persian Gulf Free on Board prices has been considered as the basis for calculation for implicit energy subsidies, while the gap between the fixed Preferential Foreign Exchange Rate and the free market exchange rate has been used to calculate subsidies for food and other basic items.

2 The “hidden subsidy” term is used in Iran to denote the foregone revenues of the government if the government can sell the energy carriers or other basic goods at regional or world markets.

commodities and distribute them with lower prices (see Section 3.1 to learn more about the PFER policy).

The Raisi administration decided to abolish the PFER policy in May 2022 and to redistribute the savings through the Just Distribution of Subsidies Scheme (JDSS),[3] a targeted social cash transfer programme. This subsidy reform initiative has not yet been addressed in much academic research: There is no evidence-based evaluation of its current or prospective successes or failures in the short and long terms or factors affecting its functioning and outcomes. Therefore, the present research aims to fill this knowledge gap.

Research findings about previous phases of subsidy reforms in Iran (2010 and 2019) are mixed. Some studies point to the positive aspects of reforms, including: the establishment and consolidation of an inclusive nationwide cash transfer infrastructure; improvement in the food consumption and nutrition levels of the poor; a decrease in the inequalities between lower- and higher-income deciles; poverty reduction; the lack of negative impacts on the labour supply; and more inclusive social contracts (Atamanov, Mostafavi, Salehi-Isfahani, & Vishwanath, 2016; Mostafavi-Dehzooei, Salehi-Isfahani, & Heshmatpour, 2020; Salehi-Isfahani & Mostafavi-Dehzooei, 2018; Vidican Auktor & Loewe, 2022). However, many of these positive aspects are based on the immediate effects of those schemes (during the first one or two years after their launch), whereas more negative implications appeared over the medium and long terms. For example, the stabilisation of prices of items subsidised by the government, despite continuous inflation, nullified the effects of the subsidy reforms; domestic currency depreciations and fixed amounts for cash transfers led to diminishing purchasing power; improved consumption patterns were reversed due to pricing freezes after initial increases; while the resulting inflation for other goods and services led to the poor struggling to prioritise their needs (Aami Bandeh Gharayi, Khodadad Kashi, & Mousavi Jahromi, 2019; Hosseini, Pakravan Charvadeh, & Salami, 2016; Sdralevich et al., 2014; Vidican Auktor & Loewe, 2022).

The main question of this discussion paper is: Under which conditions are food subsidy reforms recommendable, given the assessment of the most recent reform in Iran, the JDSS? This question can be broken down into six subordinate questions: (i) To what extent has the new policy in Iran been successful (in the short and long terms) in overcoming typical challenges of subsidy reforms such as targeting, financial and social sustainability, and governance (see Section 2) as well as in achieving its objectives (see Section 3.3)? (ii) To what extent was the context of the reform properly taken into account before the scheme was launched? (iii) How sustainable is the funding of the scheme? (iv) How well were targeting errors avoided? (v) To what extent did the scheme achieve its objectives? (vi) Which lessons can be learnt from this experience, and which recommendations can be provided for the improvement of the scheme – and more generally for similar food subsidy reform initiatives in other countries?

A secondary analysis of national data on “household expenditures” and “price index” is used to calculate changes in household living expenditures in the short and medium terms, and to determine winners and losers of the new policy. Moreover, a thematic analysis of published contents (interviews, columns, articles and public speeches) about the scheme from key experts – before and after the launch of the scheme – is used to map out various aspects of the successes and failures of the scheme.

The findings show that the way food subsidy reforms are designed, and at what moment they are implemented, matter a lot with regard to their effects. In the Iranian case, three factors may soon undermine the possible success of the scheme. First, ignoring the influential role of contextual factors, both international and domestic ones (such as economic instability, diminishing vertical trust, the lack of smooth foreign relations, budget deficit and low standards

3 See Section 3.3 for information about the scheme.

of good governance), could jointly hinder any serious achievement or nullify it very quickly. Second, the lack of an “indexation element” in an environment of continually increasing inflation and currency devaluation leads to a rapid decline in the purchasing power of cash transfers. Third, implementation shortcomings, such as targeting errors, delivery deviations and a lack of transparency, lead to serious levels of mistrust.

The paper continues as follows: Section 2 presents the most relevant literature on food subsidy reform schemes and the main challenges that may affect their success, with a focus on the MENA region. Section 3 provides the reader with an overview of the subsidy reform background in Iran while introducing the new policy initiative (the JDSS). Section 4 presents the theoretical framework of the research, while Section 5 deals with the research method. Findings of the research are presented in Section 6 and the concluding Section 7 provides the reader with some reflections on the scheme as well as recommendations to optimise it.

2 Literature review

There is a wide range of literature on the question of what makes a subsidy reform successful and what influences its implementation, outcomes and implications. Exploring the successes and failures of subsidy reforms in 22 countries and 28 reform programmes, Clements et al. (2013) suggest six key ingredients for successful reform: (i) a comprehensive energy-sector reform plan, (ii) an extensive communications strategy, (iii) appropriately phased price increases, (iv) improved efficiency of state-owned enterprises to reduce producer subsidies, (v) targeted measures to protect the poor, and (vi) depoliticised price-setting. Building on a number of studies about the determinants of reform success, Sdralevich et al. (2014) point to six slightly different factors: (i) good preparation of reforms, (ii) a gradual pace of adjustment, and breadth of the reform, (iii) strong government leadership and consensus building, (iv) support from international partners, particularly technical assistance, (v) the introduction of mitigating measures to soften the impact of reforms on the poor; (vi) favourable economic conditions, particularly higher economic growth; and the presence of a coalition government at the time of the reform. Analysing the cases of Egypt, Iran and Morocco, Vidican Auktor and Loewe (2022) introduce three essential elements in subsidy reforms to minimise their negative effects on households and the economy, namely: (i) a dialogue with society on the design of the reforms, (ii) information for citizens on the rationale and goals of the reforms, and (iii) generous and carefully designed compensation schemes for the social groups affected most negatively by reforms.

The next question is if subsidies should be replaced by “targeted” or “universal” direct cash transfers. It stands as a prominent challenge for the success or failure of any reform. Exploring various scenarios about food subsidy reforms in Egypt, Breisinger, Kassim, Kurdi, Randriamamonjy and Thurlow (2021) conclude that combining an expanded cash transfer programme with more targeted reforms of the existing food subsidy system would lead to the largest welfare gains for poor households, while leaving the welfare of non-poor households largely intact. Similarly, Omar (2021) stresses the need for a better targeting mechanism for the distribution of benefits (community-based proxy means-testing) in Egypt to avoid extensive inclusion and exclusion errors in the new food rationing system and the introduction of smart cards. In the same way, Ayadi et al. (2013) stress the necessity of targeting more rigorously and effectively the redistribution of subsidy reform revenues, based on lessons learnt from experiences in India, Morocco and Iran. For the case of Tunisia, they conclude that if the entire food subsidy budget was reallocated to the National Program of Assistance to Needy Families (PNAFN) using their proposed targeting method, the extreme poverty rate would be 0 per cent and the poverty rate 4.1 per cent. At the same time, Vidican Auktor and Loewe (2022) favour the universal cash transfer (UCT) modality over targeted transfer systems. They consider the latter as defective, and it is perceived as being paternalistic, benevolent and condescending by beneficiaries, very difficult to implement in the context of low- and middle-income countries

due to limited statistical data, and prone to inclusion and exclusion errors. By contrast, the UCT has targeting costs, and the possibilities for manipulation and corruption are close to zero. It is also more reliable and more effective in terms of poverty reduction (because of hardly any errors of exclusion) and in terms of social inclusion and cohesion, while also being crucial for the well-being of the middle class and for the political backing of reforms (Vidican Auktor & Loewe, 2022).

Another important point of contention in the debate on food subsidy reforms is the selection of policy instruments (cash transfer, package of food items in kind or food vouchers) in the redistribution of savings from the reform in order to successfully realise the social protection objectives of the reform. Reviewing a large number of studies regarding the cash versus food debate, Gentilini (2016) concludes that, in absolute terms (generally speaking and without comparing the instruments), all modalities work. When compared to control groups, cash and food transfers (and vouchers when considered) bolstered improvements in a range of indicators, such as food consumption, income, dietary diversity, poverty and malnutrition. However, in relative terms (through comparing the instruments), transfer modalities can lead to varied and mixed impacts over a range of dimensions. For example, whereas some studies indicate that cash transfers tend to be more effective than food transfers in enhancing food consumption, others show that food transfers outperform cash transfers in increasing household caloric intake. In fact, the overall effectiveness cannot be generalised. It depends on the particular objectives of the scheme, specific indicators used to measure its objectives, as well as differences in design and context. Examining various policy scenarios with regard to subsidy reforms in Tunisia that explore different combinations of budget allocations and reductions, Ayadi et al. (2013) argue that there are no reasons for maintaining indirect subsidies, since no scenario results in a better performance than the abolition of subsidies and the reallocation of the related budget to direct transfers.

3 Historical background and the need for reform in Iran

3.1 Background

Iran has a long history of providing general subsidies for basic commodities and services, specifically on food items. This policy was reinforced during the Iran–Iraq war (1980-88), during which a rationing system for the distribution of subsidised basic commodities was intended to ease the economic hardship and guarantee a minimum intake of calories.

The Structural Adjustment[4] programme of the post-war period (throughout Rafsanjani's administration) gradually removed some of these subsidies (e.g. by stopping to distribute food stamps for certain food items such as cheese, eggs, chicken as well as detergents and petrol) while retaining them for others, especially wheat flour. These reforms were continued at a slower pace during Khatami's administration. The reform was planned to be implemented gradually (adjusting the prices by 10 per cent annually), but it was stopped by the opposing majority in Parliament at that time.

4 After the end of the Iran–Iraq war in 1988, the Hashemi Rafsanjani administration started a Structural Adjustment programme in line with the Washington Consensus and recommendations of international organisations such as the IMF and the World Bank. It included privatisation, price liberalisation, import liberalisation, labour force adjustments, subsidy reforms and the gradual withdrawal of the government's role in some social and public services, such as free education (see e.g. Momeni, 2007).

Under the Targeted Subsidies Scheme (UCT scheme),[5] which started in 2010 (during Ahmadinejad's administration), the "bread subsidy" was replaced by a direct cash payment (40,000 rials or about US$4 per month and person[6]).

This payment was given in addition to a quasi-UCT, which was financed by the savings that the government had made through the liberalisation of the prices from energy carriers such as fossil fuels and electricity (415,000 rials, about US$41 per individual). These transfers were paid monthly to the heads of households and nearly covered the whole population (more than 70 million individuals) at that time.[7] If considering the purchasing power parity (PPP) index, the total amount of cash transfers was nearly US$115 PPP[8] per month and person, which was quite generous compared to existing social assistance benefits. In fact, the government was claiming that it had eradicated absolute poverty in the country with the introduction of this scheme.

However, the economic situation in the poorer parts of the population deteriorated again in the subsequent months and years. On the one hand, inflation ate up increasing shares of the purchasing power of the transfers. This was partly due to the reform itself, as it led to higher energy and food prices, but also to a significant devaluation of the national currency and sharp decreases in oil revenues after 2012 as a consequence of the tightening of economic sanctions against Iran by the United States. On the other hand, the government of Iran did not increase the nominal value of the cash transfer so as to account for high inflation, with the effect that the value declined to US$13 in 2015 and just US$1 in February 2023.

The unilateral withdrawal of the United States under Donald Trump from the Iran nuclear deal in May 2018 and the re-instalment of the "crippling sanctions" (which aimed at zero oil exports and a maximum decrease in foreign exchange revenues, among other measures) created economic turmoil with harsh consequences for the country's overall economic growth (see Figure 1) as well as for the daily lives of ordinary people, who had to struggle with increasing prices, including for food items.

Facing this extraordinary situation, Rouhani's administration decided to regulate and control the rate and amount of exchange of foreign currency, which was allocated for various purposes with a view towards managing revenues and expenditures. The most controversial part of this policy was the allocation of considerable foreign currency resources to 25 basic commodities (including food items such as wheat, barley, corn, cooking oil) at a PFER (a fixed rate of 42,000 rials for each US dollar).

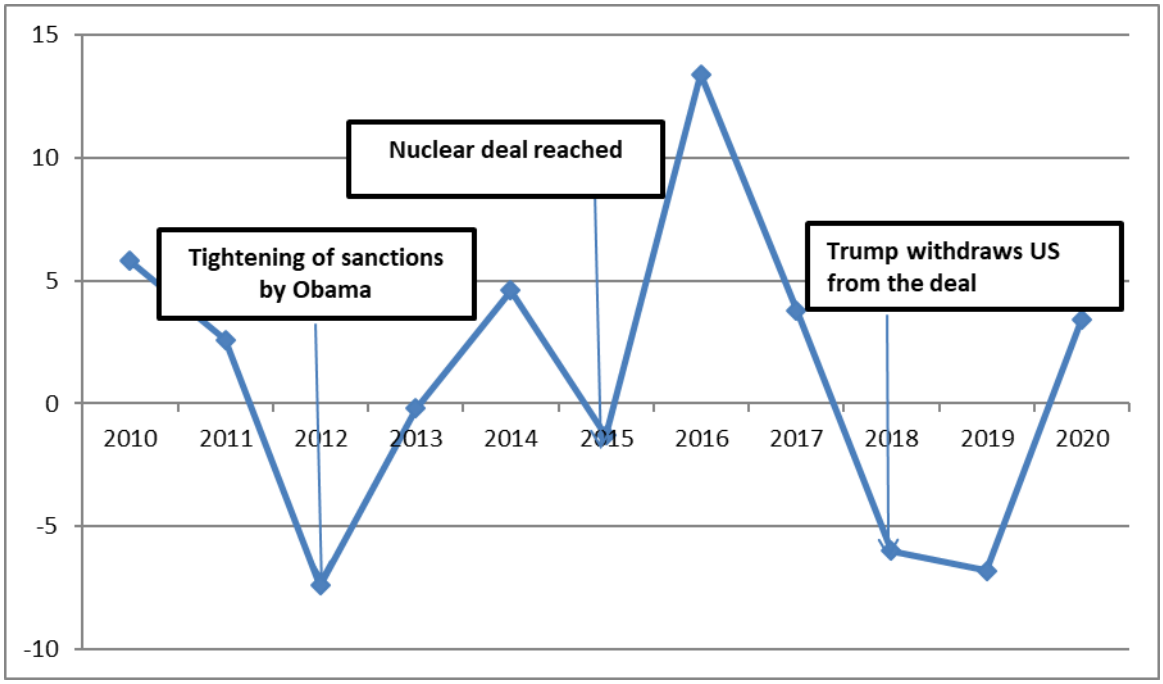
5 Although using the term "subsidy" for naming the alternative "cash transfer" module may be misleading, this is quite common in Iran. The cash transfer is called "cash subsidy", "bread subsidy" or "targeted cash subsidy", while all of these are in fact cash transfers. Even these cash transfers are attributed to the respective president: "Ahmadinejad subsidy", "Rouhani subsidy" and "Raisi subsidy".

6 Based on exchange rates in the free market.

7 In fact, both transfers (40,000 rials and 415,000 rials) were implemented under one scheme and one payment, but they were declared and reported separately to emphasise the government's attention to the "bread issue".

8 The reason for reporting PPP is to enable the reader to compare the cash transfer with similar schemes in other countries. The figures have been calculated based on the World Bank database (s.a.-a). PPP conversion factor, GDP (local currency units per international dollar) for an Iranian rial was 3,926 in 2010, 21,535 in 2019.

Figure 1: Trend of Iran's GDP growth rate (2010-2020)



Source: Data gathered from the World Bank dataset (s.a.-b)

Table 1: Change of price indices for different items between 2017 and 2022 (consumer price for 2016=100)

Items	May 2017	May 2018	May 2019	May 2020	May 2021	May 2022
Overall	105.06	114.12	171.99	208.7	304.9	424.4
Food and drink	110.28	119.58	217.41	243	393.3	589.9
Bread and grains	105.47	116.76	161.55	203.2	319.1	540.8
Meat (white and red)	106.83	126.05	254.98	250.7	431.3	569.9
Milk, cheese, eggs	103.81	119.12	176.71	226.4	399.1	586.0
Cooking oils	107.17	115.43	176.05	192.4	396.1	536.4
Fresh and dried fruits	118.82	119.55	252.23	289.7	408.1	601.8
Vegetables	131.54	121.66	284.09	283.1	426.5	732.6
Sugar and related items	104.51	110.15	200.72	234.1	395.7	607.4
Housing	102.72	113.11	141.78	175.7	226.4	295.4
Rent	102.7	113.13	141.65	175.5	225.7	294.3
Public utilities	105.56	102.94	132.27	138.8	175.6	213.8
Health	104.03	112.04	144.3	176.1	251.9	334.7
Education	105.6	118.99	144.36	173.6	214.0	272.9
Transport	102.84	109.52	180.46	266.7	393.9	562.3

Source: Data gathered from the Statistical Center of Iran (s.a.-a)

Accelerating inflation and the rapid devaluation of the national currency soon led to a considerable gap between the governmentally defined rate (42,000 rials in September 2018) and the market rate of conversion of the national currency into US dollars (185,000 rials in September 2018). Despite the allocation of enormous amounts of preferential foreign exchange (more than US$100 billion over four years), prices for the specified commodities, including food items, increased at high rates in subsequent years (see Table 1). The PFER remained fixed during these years because the market rate reached almost 300,000 rials per US dollar in May 2022.

3.2 The need for a new scheme

There is a wide consensus among commentators from various academic disciplines as well as from different parts of the political spectrum that the existing mechanisms for allocating foreign exchange reserves under the PFER policy was inappropriate. Pro-government economists such as Mesbahi Moghaddam (2022a) were pointing to several problems resulting from the PFER policy: the vast corruption resulting from the PFER policy (see Section 6.5.1), the smuggling of cheap basic commodities to neighbouring countries (given the considerable differences in the prices of subsidised items in Iran and their prices in neighbouring countries), the wasting of foreign exchange reserves and the adverse effects on domestic production (due to encouraging imports). Similarly, Abdi (2022) calls the PFER "poisonous foreign exchange" and points to the serious consequences it has, such as increasing corruption (in allocation of the foreign exchange), decreasing efficiency (in production due to price distortions), smuggling and waste of resources. Similarly, Nazeran (2022) argues that it was the unsustainability of non-equilibrium prices[9] due to the PFER policy that led to the severe situation and forced the government to implement the new scheme, even without preparation of the electronic voucher system. Leylaz (2022) estimated that about 60 per cent of the benefits of the PFER reached brokers (major importers and distributors) and billionaires and made them super-billionaires (since the majority of cheap foreign exchange was allocated to importers linked to those in power). Serious weaknesses in allocating, monitoring and following-up on the PFER (Davarpanah, 2022), the inefficient distribution chain of basic commodities (Hashemkhani, 2022a) and the burden on the public budget (Soori, 2022a) were other problems of the previous policy mentioned by several analysts.

The PFER policy was continued by the Raisi administration for about one year, although he and his cabinet were clearly against the policy. However, the government stopped the policy in May 2022 in collaboration with the Parliament.[10] It replaced the PFER policy with the Just Distribution of Subsidies Scheme.

3.3 Introducing the scheme

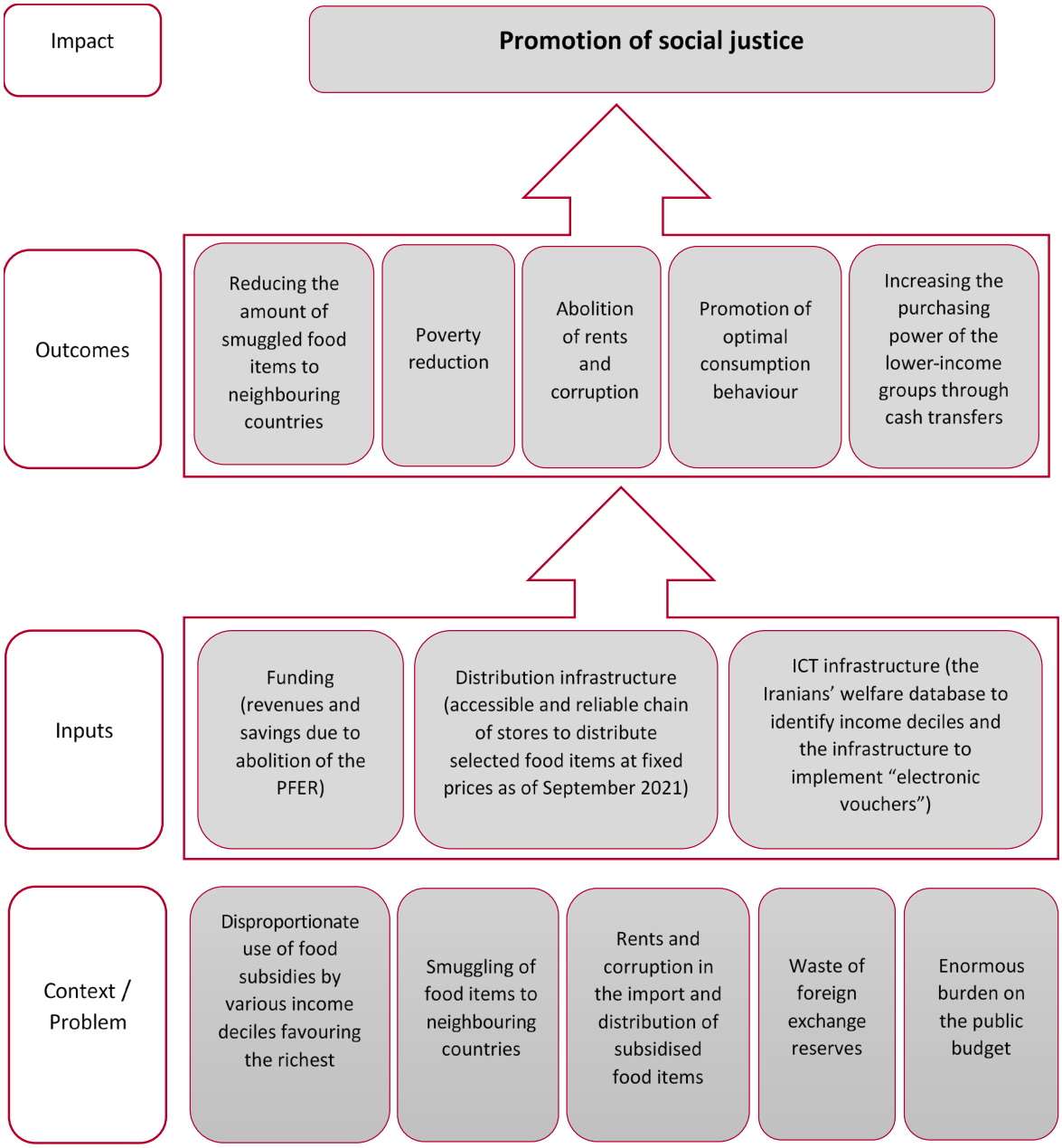
On 9 May 2022, President Ebrahim Raisi launched the JDSS. Figure 2 summarises the theory of change that stands behind it. It was assumed that the information and communication technology (ICT) infrastructure and the distribution chain would be capable of handling the electronic voucher with minimum targeting errors, while the financial resources (revenues and savings due to the abolition of the PFER) would be sufficient to cover costs of the JDSS.

9 Prices defined by governmental decrees instead of being defined through supply and demand equilibrium.

10 The Parliament allowed the government in the 1401 (2022-2023) Budget Act to omit the PFER for basic commodities, but obliged it to compensate for the losses experienced by consumers through "electronic vouchers", which would enable them to purchase a certain amount of those commodities at fixed prices as of September 2021.

Analysis of the statements by the president (Aiming at the democratization, 2022a) and Minister of Economic Affairs and Finance (Class gap, 2022b) during the launch of the scheme point to a series of objectives that could be regarded as the targets (outcomes) of the scheme: the abolition of rents and corruption; reducing the amount of smuggled food items to neighbouring countries; the promotion of optimal consumption behaviour; poverty reduction; and increasing the purchasing power of the lower-income groups through cash transfers. All of these objectives serve the overall goal of the scheme to promote social justice and equality in society (especially in terms of benefiting from the subsidies). Elements of this model are used across the present research to assess various aspects of the scheme.

Figure 2: The JDSS theory of change



Source: Author's work mainly based on statements by the president (Aiming at the democratization, 2022a) and Minister of Economic Affairs and Finance (Class gap, 2022b)

The original idea behind it was to allocate the subsidisation of basic commodities (starting with major food items) to their consumers, rather than the importers, producers or distributors of the commodities, that is, to target the final rather than the initial or middle part of the supply chain. Chicken, eggs, cooking oil, milk and milk products as well as wheat flour (except for bakeries cooking traditional breads) were the first items for which PFER was abandoned. Parliament called on the government to allocate the budget funds saved by abolishing the PFER given directly to households by providing them with "electronic vouchers" with which they could buy a certain basket of basic food items from chain stores and selected other grocery shops (at the fixed prices[11] of these items, as of September 2021). This means that some portions of the subsidies would still be allocated to the distributors.

However, and because the infrastructure for electronic vouchers was not completely ready, the government changed the implementation of the scheme. Originally, it had declared that the cash transfer would be in place for only the first two months after the launch of the scheme. However,[12] it then decided to grant a fixed monthly direct transfer of 4,000,000 rials (equal to almost US$13.5 according to the market exchange rate in May 2022, respectively 57.9 international dollars by PPP conversion)[13] for each individual to the account of the head of household for those who were in the lowest three deciles of the population (comprising about 30 per cent of the country's inhabitants),[14] and 3,000,000 rials (nearly US$10 according to the market exchange rate in May 2022) was paid for each individual in all households belonging to deciles four to nine of the population, whereas the richest decile received no compensation.

To prevent opposition and unrest, the government transferred the equivalent of two monthly payments to the accounts of the heads of households already when the president announced the introduction of the new scheme. The amount was initially frozen in the accounts, but half of it became accessible after two days, while the other half could not be used before the next month. The government declared that an electronic voucher would replace the cash transfer starting in the third month of the scheme, but it continued to grant the direct cash transfers for several months. A pilot phase for electronic vouchers was launched in Hormozgan province in November 2022, but no evaluation result has been released yet, and it is not clear when the electronic voucher will replace the current cash transfer method.

11 Ironically, the idea of "fixed prices" is present even in a subsidy reform policy. Instead of having an "indexation element" in the scheme, which enables the people to afford a defined package of food items according to inflation, policy-makers' mentality is set on the old idea.

12 This, in fact, has led to a change in design (from a voucher module to a cash transfer module), since it has been in place for nine months and no clear date has been declared for changing it to the voucher module.

13 PPP conversion factor, GDP (local currency unit per international dollar) for an Iranian rial was 46,072 in 2021. Applying the simple moving averages of its growth rate for 2020/2021, the figure for 2022 would be equal to 69,108. Therefore, it would be equal to $57.9 when considering the PPP index.

14 It is noteworthy that there are other social protection schemes (including means-tested cash transfer programmes) in the Iranian welfare system that provide the needy (such as households under the poverty line, female heads of households, people with disabilities and the elderly) with monthly cash transfers. Specific social services (in the fields of education, health, employment, housing, rehabilitation and care, etc.) are provided to these groups by other social welfare programmes administered by different organisations. In 2021, 2,203,514 households (4,665,511 people) were covered by the Imam Khomeini Relief Foundation, while 295,017 households were covered by the State Welfare Organization. The cash benefits for these families increased by 338 per cent in 2017 (e.g. a family of four persons received a monthly amount of 10,800,000 rials in 2022), but given the continuously high inflation rate and devaluation of the national currency, it only covered 19 per cent of the overall expenditures and 53 per cent of the food expenditures of rural households, while covering about 10 per cent and 45 per cent, respectively, for urban households (Parliament Research Center, 2023).

Special arrangements have been designed for wheat flour and bread subsidies. Initially, bakeries and the food industry had received subsidised flour, but since the reform, they have to purchase flour at market prices. Instead of a general subsidy being provided for flour (which was used by all segments of the food industry), an electronic system has been designed by which traditional bakeries receive the difference between the market price of bread and the current subsidised bread price at the time of the purchase. Consumers should use their debit cards to buy subsidised bread from traditional bakeries. Non-traditional bread and other food items based on wheat flour (including spaghetti, which is widely used by low-income families) receive no subsidised wheat flour.

4 Theoretical framework

Food subsidy policies and subsidy reforms have been examined from different theoretical perspectives. In the following, some of these perspectives are briefly presented and their relevance for the current evaluation research is explained.

4.1 Market distortion

Using a neo-classical approach, a first group of authors (including the IMF) sees any kind of subsidy (including food and energy subsidies) as a distortion of markets. This is in line with the broader argument of this theoretical perspective, namely that all state interventions – including taxes and subsidies – reduce the general welfare. Therefore, these authors recommend subsidy reform as a means to reinstall perfect competition and to remove interferences in the normal functioning of market processes.

Although, the IMF was initially less concerned with the social impacts of subsidy reforms, more recent evaluations and expert recommendations have paid more attention to the social aspects, including the negative impacts on vulnerable groups, as well as the social protection measures to compensate for the needy through targeted schemes. A review of the IMF's advice and operational work on subsidy reforms in 11 countries by Feltenstein (2017) indicates that it has moved towards more emphasis on social protection as an integral part of subsidy reforms. This move has been followed by two general approaches to social protection: 1) using the subsidy reforms as a means to create "fiscal space", that is, to free up government budgetary resources to enhance overall social protection or to target support to the most vulnerable groups; 2) viewing the social implications of a subsidy reform (such as social unrest) as a constraint on its implementation, and therefore advising remedies such as targeted payments to the poor in the form of vouchers or direct cash transfers. This conceptual tool is relevant for the present evaluation research, since it helps to examine if the new policy is able to correct market distortions and improve the social protection system.

4.2 Social justice

"Social justice" has been used as an argument for both the introduction of general subsidies (inter alia on food items) and subsidy cuts. General subsidies can be seen as a manifestation of "equal citizenship", whereby no distinction is made between different social classes because all people benefit from the subsidies, without the stigma that targeted direct and indirect social transfers bring about. Whereas many Western countries adopted social policies in the form of free or subsidised services in areas such as education, health, housing, social care and employment, less-developed countries with limited state capacity have used general subsidies to reduce the prices of energy and food items, thereby improving social justice. Examples of this

tendency can be found after the Second World War in various leftist, populist and authoritarian governments across the world (Omar, 2021).

At the same time, the proponents of subsidy cuts also use the argument of social justice when they point to the regressive nature of general subsidies (especially energy subsidies). Some of them make a case for subsidies targeted at people in need, arguing that more affluent people are benefiting much more from general subsidies than the poorest groups (El-Katiri & Fattouh, 2017). This latter conceptualisation of social justice seems to be the basis for the new subsidy reform policy in Iran (since it is called the "Just Distribution of Subsidies Scheme") – and it is a reason why the current research should examine to what extent it has been successful in fulfilling its equality-related objectives.

4.3 Social contract

Subsidy reform has also been analysed from a social contract perspective. Studying the cases of subsidy reform in Egypt, Iran and Morocco between 2010 and 2017, Vidican Auktor and Loewe (2022) conclude that these reforms were transformations of the social contracts between the states/governments and societies/ societal groups in the above-mentioned countries. Loewe, Zintl and Houdret (2021) consider the social contract as an equilibrium of the give-and-take between those in power and the rest of society. Accordingly, social contracts oblige the government to provide the people with the three "Ps": protection (individual, collective and legal security), provision (of basic and social services alongside infrastructure and economic opportunities) and participation (of all citizens in political decision-making processes). In return for providing deliverables, governments expect members of society to comply with its rule, to confirm – or at least not object to – the legitimacy of its rule, and to remain loyal when conflict with others arises.

Although governments in the MENA region were providing their citizens with social benefits (including energy and food subsidies) for decades in order to compensate them for their lack of political participation, declining revenues from external rents (including from natural resources) forced them to cut the provisions stipulated by the existing social contracts. Vidican Auktor and Loewe (2022) found that Morocco preserved most of its previous social contract by removing most subsidies, explaining the need for reform, engaging in societal dialogue and implementing some compensatory measures. The Egyptian government transformed the social contract from a provision to a protection pact by dismantling subsidy schemes more radically, without systematic information and consultation campaigns, and offering limited compensation. Iran paved the way to a more inclusive social contract by replacing subsidies with a more cost-efficient and egalitarian quasi-UCT scheme. One of the main conclusions of the authors is that UCT schemes following subsidy reforms are more compatible with inclusive social contracts.

The Iranian Constitution, which was adopted after the Islamic Revolution in 1979, portrays the Iranian welfare system as a "universal" and "comprehensive" welfare state. Analysing the content of this Constitution, Tajmazinani (2011) identifies features such as universal rights to social services – for example education, health, social protection, full employment and housing – as well as the state's responsibility towards meeting those needs. The Constitution could be regarded as a "revolutionary social contract", which was promised by the Islamic Republic to the people. Therefore, it is important to assess the new JDSS in Iran in terms of achieving the objectives towards a more inclusive social contact.

4.4 State capacity

Originally used by historical sociologists such as Charles Tilly, the concept of "state capacity" (which initially referred to the power of the state to raise revenues) is now being applied to explain various phenomena of public policy-making. Accordingly, the state capacity approach has been used to explain why subsidy reforms are successful in some countries but fail to be fully accomplished in other contexts. Studying the challenges of subsidy cuts in Latin America, Claycomb (2021) propounds that state capacity (especially the administrative and regulatory aspects) is a crucial precondition for policy reform, thereby casting doubt on the prospects of reforms that do not first address the deeper problem of state weakness. Based on this study, a functioning bureaucratic state apparatus could create the institutional preconditions that provide leaders with latitude in designing and implementing politically optimal reform strategies, whereas a politicised and unprofessional bureaucracy limits leaders' choices, driving politically volatile reforms. Similarly, the findings from the research of Natalini, Bravo and Newman (2020) demonstrates the role of state capacity and socio-economic conditions in enabling conflict and providing fertile grounds for fuel riots, that is, societies are likely to be affected by increases in fuel prices due to subsidy reforms. Therefore, fragile states become reluctant or are unable to undertake major subsidy reforms or withdraw after the launch of the reforms if they face serious opposition. The concept of state capacity is of high relevance to the present research, since it helps to examine the successes and failures of the new scheme in direct relation to the administrative, financial and political capacities of the state in Iran for undertaking widespread and successful subsidy reforms.

5 Research method

The present research employs both quantitative and qualitative research techniques. The context, input, process and product (CIPP) evaluation model of Stufflebeam and Coryn (2014) is used as the overall framework for evaluating the scheme. The CIPP model suggests that it is important to evaluate the context (i.e. needs, problems, opportunities, relevant contextual conditions and dynamics), the inputs (i.e. quantity and quality of allocated funds, staff, equipment, etc.), the processes (i.e. information campaign, selection and targeting, organisation of programme, welfare take-up, etc.) and the products (output as well as intended and unintended outcomes and impacts) of any policy initiative to understand it. The CIPP model can be used both for formative evaluations (which are done before and throughout the implementation of a policy) and summative evaluations (which are done after a policy has ended). Various research techniques can be used to apply the model. Given the limits of time and resources for the present research, the following two techniques have been applied.

A) ***A thematic analysis*** was applied to analyse the contents dealing with the new scheme published during the three months before and four months after the launch of the scheme, that is, since the submission of the 1401 (2022-2023) Budget Bill to the Parliament.[15] These publications include mainly interviews, columns, reports and public speeches by key experts about various aspects of the scheme, since no research findings were available on the evaluation of the scheme. Purposeful sampling was used to select the experts (see Table A28 in the Annex for a list of experts), given the considerably high volume of the published contents. Applying a "maximum variance technique", experts from various fields of the humanities and social sciences were included, although the majority of those experts who have written or spoken about the scheme in the above-mentioned time slot (three months before and four months after

15 The Iranian calendar is called "Solar Hejri". Accordingly, the fiscal year starts on the first of Farvardin (21 or 22 March) and ends on 29th or 30th of Esfand (20 or 21 March of the following year).

the launch of the scheme) are economists. Nationwide news agencies, newspapers, journals, expert discussion platforms as well as websites, weblogs and social network channels/pages (if available) of the related experts were searched for related contents. All of the contents are in Farsi, and therefore all quotes in this research are English translations by the author of the original content, which can be accessed through the links provided in the References. A deductive thematic analysis was used to analyse the collected contents, and the main elements of the CIPP model served as the main themes, while inductive analysis was used to find the main concepts and subthemes. Coding and analysis of the related contents were continued until saturation was reached and no new concept emerged from the material.

B) ***A secondary analysis*** was conducted using national data from the "Iranian Household Income and Expenditure Survey" and a consumer price index, both provided by the Statistical Center of Iran. The analysis was undertaken to forecast changes in the living expenditures of different kinds of households in Iran in the short term. It is based on the living expenditures of these households before the launch of the scheme and covers the period from the start of the scheme to one and a half years afterwards. Using the "weighted moving averages" technique,[16] inflation rates during the three months prior to the launch of the scheme were applied to prices (both for food items and all other living expenditures). The difference between nominal and real prices (based on weighted moving averages of inflation) was applied to the "consumption pattern" of households in various expenditure deciles of the population. Then, the increase in the living expenditures of each expenditure decile of the population was compared with the amount of the cash transfer allocated to an average household in each decile to evaluate the suitability and adequacy of the cash transfers as compared with the loss in the purchasing power of households.

6 Research findings

A number of features of the programme design and its implementation may undermine the success of the JDSS. The most notable issue in this context is that the nominal value of cash transfers is not indexed to inflation, even though inflation rates in Iran have been high since the introduction of the scheme – not just because of it. Other problems are that it is unclear how the cash transfers are going to be financed in the future and that significant targeting errors prevail. It seems that these shortcomings are hampering the objectives of the scheme, such as the provision of food security, poverty reduction, the decrease in income inequality and the abolition of corruption. This section addresses the above-mentioned issues. Section 6.1 elaborates on the dilemma of redistribution in the inflationary situation of the Iranian economy and how it might nullify the effects of the cash transfer initiative. Section 6.2 addresses some of the framework factors that could jeopardise the scheme's success. Section 6.3 examines major challenges to the funding of the scheme, while Section 6.4 explores deficits in its implementation. Section 6.5, finally, deals with some impacts of the scheme, including the question of whether the scheme's objectives are achievable at all.

6.1 Dilemma of redistribution in an inflationary situation

The JDSS has been adopted mainly with a view towards better redistributing the resources that the state has been spending so far on general consumer subsidies under the PFER policy to

16 This technique assigns a heavier weighting to the more recent data points, since they are more relevant than data points from the past. Since a period of three months was used to calculate the average inflation rate, the figure of the month prior to the related month was weighted 3, the month before it was weighted 2 and the third month before it was weighted 1.

more underprivileged groups. However, we find evidence that this very objective might become undermined by inflation: Policy-makers did not index the nominal level of the cash transfers to consumer prices, meaning that their real value will decrease over time. This section examines the effects of the food subsidy cuts on the spending of households in different expenditure deciles of the population, and it compares the respective losses of these households in purchasing power with their gains from the direct cash transfers. We argue that high-income groups do not benefit from the reform in net terms right from the start, whereas lower income earners may initially benefit but will cease to do so after a few months.

6.1.1 The JDSS and inflation

A key question with regard to any change in general subsidies is the relationship between subsidy cuts and the rise of prices of previously subsidised goods as well as all other goods produced from them. It was a common prediction among analysts, both before and after the launch of the JDSS scheme, that it would lead to a notable increase in inflation (explained below). However, there was no consensus on the extent of this inflation nor how to differentiate it from the inflation caused by other factors.

It is an interesting fact that, in this phase of the subsidy reform, even many religious figures – including Friday Prayer Imams across the country – supported President Raisi's initiative for being economically sound and pro-poor (this was due to Raisi's close relationship with traditional religious forums). Conversely, they were warned by some analysts, such as Sobhani (2022), not to lose their remaining social capital and to avoid eroding people's religious beliefs by supporting economic policies that would certainly lead to high inflation.

Citing research findings by the Ministry of Cooperatives, Labour and Social Welfare predicting that 1.5 million people would fall below the poverty line with each additional 10 per cent increase of inflation, Mostafavi Sani (2022) warns that the new scheme would lead to widespread poverty that could not be compensated for with any cash transfer programme. Similarly, Afghah (2022a and 2022c) predicts rising prices and decreasing purchasing power as the main side effects of lifting the PFER, as the planned cash transfer would be unable to compensate for the resulting inflation. Given the price stickiness of various goods, he predicts chain inflation in other commodities. For example, he expects that – following the rise in prices of cooking oil, flour, meat and sugar – there will be a rise in prices of all food products containing them. Karimi (2022) is certain that the new policy will accelerate inflation. Raghfar (2022c) argues that the resulting high inflation rate will be unprecedented – as happened following the Anglo-Soviet invasion of Iran in 1941 – given the fact that some basic commodities experienced nearly 200 per cent inflation. Shakeri (2022) criticises those who forecasted about 5 to 6 per cent of inflation by applying quantitative models of inflation projection. Shakeri predicts that the initial shocking levels of inflation will rise and the economy will experience price jumps in the coming months, and the inflation increase will be extended to thousands of other goods (especially food products), severely affecting the middle- and lower-income classes.

Tables 2 and 4 display the inflation rates for different food and non-food items for the urban and rural populations, respectively, over a period of six months. Apparently, there were sharp increases in consumer prices for both urban (from 3.7 per cent to 11.5 per cent) and rural households (from 2.8 per cent to 15.8 per cent) in June 2022 – one month after the subsidies were cut. Differences between current inflation rates and inflation rates calculated on the basis of weighted moving averages – in cases where the JDSS was not in place – (see the methodology section) are noteworthy: 11.5 per cent compared to 3.1 per cent for urban areas (nearly fourfold), and 15.8 per cent compared to 3.0 per cent in rural areas (more than fivefold).

Table 2: Urban inflation rates (March-August 2022)

	March	April	May	June	July	August
Overall (effective inflation rates)	1.2	3.2	3.7	11.5	4.5	2.0
Overall (hypothetic inflation rates using WMA)*				3.1	3.3	3.3
Food and drink (all)	1.7	4.7	3.6	25.6	5.7	1.5
Bread and grains	5.4	2.3	7.7	19.4	5.9	3.2
Milk, cheese, eggs	0.9	1.8	3.1	47.5	7.7	2.3
Cooking oil	0.9	1.3	14.3	197.0	3.1	-0.1
Meat (white and red)	2.7	5.6	3.1	19.7	10.9	-0.4
Fresh and dried fruits	-5.2	11.5	1.6	8.7	5.3	1.1
Vegetables	2.1	7.0	-2.3	9.1	0.1	1.3
Sugar and related items	3.8	6.2	7.1	14.9	5.1	2.0
Housing	0.7	2.1	2.5	2.3	4.0	2.8
Rent	0.7	2.0	2.5	2.3	3.9	2.9
Public utilities	-1.5	1.0	-1.7	7.7	3.3	1.5
Health	0.8	2.1	4.3	6.0	6.0	3.6
Education	0.1	0.4	0.5	1.1	3.9	3.0
Transport	-0.1	3.3	6.9	3.4	2.9	1.1

*Note: Inflation rate is calculated using weighted moving averages (in cases where the JDSS was not in place.)
Source: Author's calculations based on consumer price index data gathered from the Statistical Center of Iran (s.a.-a)

Table 3: Average annual and monthly living expenditures for various expenditure deciles of the urban population (2021-2022)

Item	All	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile10
Average household size	3.26	2.44	3.06	3.22	3.39	3.33	3.38	3.36	3.44	3.51	3.49
Non-food*	694,815	158,379	253,645	327,141	398,425	483,887	575,822	689,111	847,713	1,130,918	2,083,914
Food and drink**	246,537	88,880	141,812	169,617	195,875	214,258	238,777	268,321	300,204	349,882	497,916
Total (2021)	941,352	247,259	395,457	496,758	594,300	698,145	814,599	957,432	1,147,917	1,480,800	2,581,830
Total (2022)* **	1,301,890	341,959	546,917	687,016	821,917	965,535	1126,590	1,324,128	1,587,569	2,047,946	3,570,671
Total monthly (2022)***	108,491	28,497	45,576	57,251	68,493	80,461	93,883	110,344	132,297	170,662	297,556

Notes:
*Average annual non-food expenditures: Figures are in thousand rials ('000); **average annual food and drink expenditures: Figures are in thousand rials ('000); ***average annual total expenditures (hypothetical): Based on annual inflation rate (38.3 per cent) for urban population (May 2021 to May 2022).

Source: Author's calculations based on the "Iranian Household Income and Expenditure Survey" data gathered from the Statistical Center of Iran (s.a.-b)

Since the Iranian economy is suffering from chronic inflation even without the reform, it is difficult to distinguish between the effects of the pre-existing inflationary causes (such as imported inflation, enormous levels of liquidity and the budget deficit) and the effects of the food subsidy reform. Some commentators have argued that the inflation rate in May 2022 should not be attributed to the JDSS. According to them, inflation was high because of increases in the monetary base and levels of liquidity alongside a notable increase in salaries and pensions in 2021, thereby diminishing the hopes of revitalising the Iran nuclear deal (the Joint Comprehensive Plan of Action – JCPOA), as well as rising world prices due to the Covid-19 pandemic and Russia's invasion of Ukraine (Sarzaeem, 2022a). However, the figures presented in Tables 2 and 4 seem to support the opposite. While the overall level of inflation is quite notable, an extraordinary rise is evident in the prices of all food-related items, especially of "cooking oil" (197 per cent in urban and 204.8 per cent in rural areas) as well as "milk, cheese, eggs" (47.5 per cent and 46.2 per cent, respectively). These and some other food products that have been subject to the highest rates of inflation are exactly the items that have been de-subsidised under the new scheme.

Table 4: Rural inflation rates (March-August 2022)

	March	April	May	June	July	August
Overall (effective inflation rates)	1.6	4.0	2.8	15.8	4.8	1.7
Overall (hypothetic inflation rates using WMA)*				3	3.1	3
Food and drink (all)	1.7	5.5	2.3	26.7	5.7	0.8
Bread and grains	3.2	2.2	5.8	18.9	5.3	2.9
Milk, cheese, eggs	1.3	2.4	2.1	46.2	7.7	2.0
Cooking oil	1.7	2.1	12.4	208.4	2.6	-1.0
Meat (white and red)	3.4	5.1	3.9	19.9	14.3	-1.4
Fresh and dried fruits	-6.3	12.1	-4.3	11.2	4.3	-1.2
Vegetables	2.8	10.2	-4.3	11.3	0.9	0.9
Sugar and related items	4.9	10.3	7.8	16.0	4.1	0.5
Housing	0.9	2.1	2.2	2.4	2.7	2.6
Rent	0.9	1.8	1.8	2.0	2.7	2.7
Public utilities	-0.8	4.0	-0.8	3.9	4.2	7.9
Health	0.7	2.3	3.8	5.6	6.2	3.3
Education	0.0	0.3	0.1	0.4	2.7	1.6
Transport	0.2	3.2	5.5	5.2	4.3	1.8

*Note: Inflation rate is calculated using weighted moving averages (in cases where the JDSS was not in place.)

Source: Author's calculations based on consumer price index data gathered from the Statistical Center of Iran (s.a.-a)

Table 5: Average annual and monthly living expenditures for various expenditure deciles of the rural population (2021-2022)

Item	All	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10
Average household size	3.48	1.89	2.81	3.24	3.35	3.66	3.77	3.89	3.93	4.02	4.06
Non-food*	322,383	61,229	102,961	137,425	171,942	212,256	258,399	315,993	402,673	535,662	1,025,947
Food and drink**	207,034	46,970	98,645	130,754	156,786	179,748	202,259	231,348	261,807	311,105	451,163
Total (2021)	529,417	108,199	201,606	268,179	328,728	392,004	460,658	547,341	664,480	846,767	1,477,110
Total (2022)***	743,301	151,911	283,055	376,523	461,534	550,374	646,764	768,467	932,930	1,188,861	2,073,862
Total monthly (2022)***	61,942	12,659	23,588	31,377	38,461	45,865	53,897	64,039	77,744	99,072	172,822

Notes: * Average annual non-food expenditures: Figures are in thousand rials (’000); ** average annual food and drink expenditures: Figures are in thousand rials (’000); *** average annual total expenditures (hypothetical): Based on annual inflation rate (40.4 per cent) for rural population (May 2021 to May 2022).

Source: Author’s calculations based on the “Iranian Household Income and Expenditure Survey” data gathered from the Statistical Center of Iran (s.a.-b)

Rows 2, 3 and 4 in Tables 3 and 5 show the actual average annual and monthly living expenditures for average households in various expenditure deciles of the urban and rural populations (2021-2022). These figures are used to calculate the effects of inflation on the living costs of the population, differentiated by rural/urban categorisation as well as expenditure decile (shown in rows 5 and 6 of those two tables). Whereas the figures presented in these tables for 2021 are based on the results of the latest version of the National Household Expenditure and Income Survey, which is conducted by the Statistical Center of Iran, the figures for 2022 are calculated using the official inflation rates for May 2021 to May 2022 published by the Statistical Center of Iran: 38.3 per cent for urban and 40.4 per cent for rural areas. The overall monthly expenditures for various deciles in May 2022 are used to calculate the living expenditures in the months following the start of the JDSS and exploring if the new cash transfers are sufficient to compensate for the increasing costs or not. Tables A1 and A2 as well as Tables A15 and A16 in the Annex present calculations of the inflation rate with and without the JDSS in place and its impact on monthly living expenditures for various expenditure deciles of the population, both in urban and rural areas.

Overall, these figures indicate that inflation has increased dramatically because of the JDSS. As a result, households from all income levels and both rural and urban areas must spend more to buy the same number and kinds of items as they did prior to the reform. The negative impacts of the new scheme on people’s livelihoods are illustrated in the findings of a national survey administered by the Parliament’s Opinion Poll Center, which shows that 88.6 per cent of people consider the cash transfers to be insufficient and believe that their purchasing power to buy basic goods has decreased in comparison to the situation before the scheme was set up (Parliament Research Center, 2022).

Another important issue with regard to inflation and food subsidy reforms is the different share of food items in the consumption bundle of the different expenditure deciles of the population. As shown in Table 6, the first decile spends 43.3 per cent of its expenditures on food items, whereas the same rate is only 17.2 per cent for the richest decile. Therefore, the removal of

food subsidies and the resulting higher rates of inflation in food items (documented in Tables 2 and 4) have more profound negative effects on lower-income groups of the population. Unfortunately, no disaggregated data are available for the distribution of expenditures in rural compared to urban areas, but we can expect that food items represent an even higher share of total consumption for the lowest deciles of the rural population.

Table 6: Share of food and non-food items in consumption bundle of various expenditure deciles in July 2022

Item	All	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10
Non-food	72.76	56.7	58.9	61.7	63.4	65.7	67.6	69.8	72.4	75.7	82.8
Food and drink	27.24	43.3	41.1	38.3	36.6	34.3	32.4	30.2	27.6	24.3	17.2

Source: Author's calculations based on data from the Statistical Center of Iran (s.a.-b)

6.1.2 The JDSS: Who gains and who loses?

Comparing the additional costs incurred by the lowest income deciles (due to the JDSS) with the amount they receive from the new direct cash transfer scheme as compensation for the subsidy cuts may suggest that the most disadvantaged groups are the main gainers of the new policy. However, increasing levels of inflation (explained above) and the lack of an "indexation element" means all cash transfer recipients will be the real losers in the short or medium term. As explained above, all administrations since 2010 have adopted direct cash transfer policy instruments to compensate households for the rising costs of living after each phase of a subsidy reform.

Table 7 shows the cash transfers amounts granted to average households in the different expenditure deciles of the population during the three phases. To obtain the net gain of households from the latest reform initiated by the Raisi administration in terms of cash transfers, the sum of the transfers paid out earlier on the basis of the reforms implemented by Ahmadinejad and Rouhani have been deducted from the most recent payment levels. These figures are compared with the rising costs of living for the different deciles of the population in order to find out the true net gains and losses of people due to the reform. Details of these calculations are presented in the Annex.

Table 7: Cash transfer amounts (’000 rials) to average households in various expenditure deciles by urban and rural populations (in nominal terms) [17]

		All (average household)	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10
Urban	**Urban household size**	**3.26**	**2.44**	**3.06**	**3.22**	**3.39**	**3.33**	**3.38**	**3.36**	**3.44**	**3.51**	**3.49**
	Ahmadinejad CT*	1,483.3	1,110.2	1,392.3	1,465.1	1,542.45	1,515.15	1,537.9	1,528.8	1,565.2	1,597.05	0
	Rouhani CT**	1,499.6	1,256.6	1,407.6	1,481.2	1,559.4	1,531.8	1,554.8	1,545.6	0	0	0
	Raisi CT***	6,797	7,393	9,440	9,934	7,068	6,943	7,047	7,006	8,755	8,933	0
Rural	**Rural household size**	**3.48**	**1.89**	**2.81**	**3.24**	**3.35**	**3.66**	**3.77**	**3.89**	**3.93**	**4.02**	**4.06**
	Ahmadinejad CT	1,583.4	859.95	1,278.55	1,474.2	1,524.25	1,665.3	1,715.35	1,769.95	1,788.15	1,829.1	0
	Rouhani CT	1,600.8	973.35	1,292.6	1,490.4	1,541	1,683.6	1,734.2	1,789.4	0	0	0
	Raisi CT	7,256	5,727	8,669	9,995	6,985	7,631	7,860	8,111	10,002	10,231	0

Notes: * The Ahmadinejad administration granted a monthly amount of 455,000 rials for each person. Following the liberalisation of energy carriers such as for fossil fuels and electricity as well as after removing the bread subsidy, this amount was paid to all citizens. However, nearly 10 per cent of the population was gradually omitted from the list due to the budget deficit.

** Under President Rouhani, the administration started to pay out the “Livelihood Cash Transfer” to the seven lower-income deciles of the population: 550,000 rials were paid to one-person households, 1,030,000 rials to two-person households, 1,380,000 rials to three-person households, 1,720,000 rials to four-person households, and 2,050,000 rials to households with five members or more. These amounts were provided in addition to those granted by the programme that the Ahmadinejad administration had set up earlier.

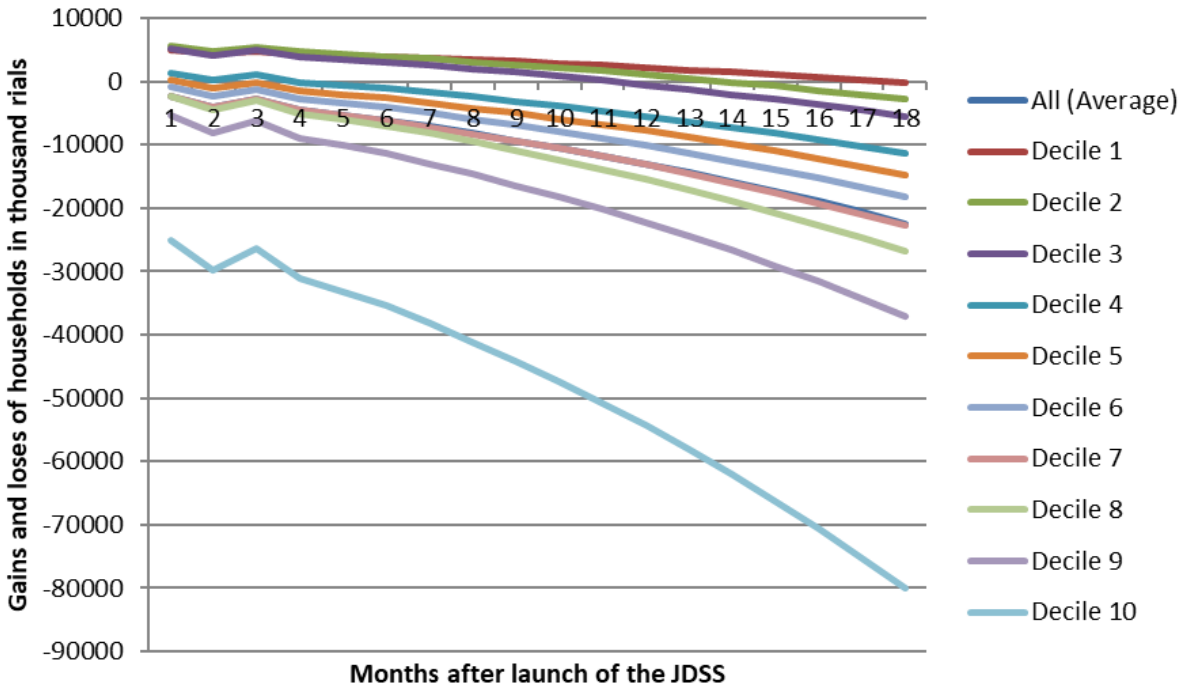
*** The Raisi administration pays 4,000,000 rials per person for members of income deciles 1 (the poorest) to 3, and 3,000,000 rials per person for income deciles 4 to 9, and no payment is made to decile 10 (the richest). However, these amounts replaced the payments that had been made under previous schemes started with the Ahmadinejad and Rouhani administrations. Therefore, this is the total cash transfer amount currently received.

Source: Author’s calculations based on the “Iranian Household Income and Expenditure Survey” data gathered from the Statistical Center of Iran (s.a.-b)

Tables A3 to A14 in the Annex include information about the gains and losses of people in the different expenditure deciles in urban areas over the 18 months following the launch of the scheme, while Tables A17 to A27 indicate the same for the rural population. These tables show that although the rural population in expenditure deciles 1 to 5 as well as urban people in deciles 1 to 4 benefitted from the scheme in the three months following its launch, the picture is not the same in the subsequent months. After six months (November 2022), decile 5 of the rural and decile 4 of the urban population join the losers’ camp and the cash transfers are no longer sufficient to cover their extra living expenditures. All other factors beings fixed, only deciles 1 and 2 of the urban population as well as deciles 1 to 3 of the rural population could be expected to see a small gain from the scheme on its first anniversary. However, no one will remain in the gainers’ camp 18 months following the launch of the JDSS.

17 For comparison purposes, the value of cash transfers for a one-person household in US dollars (free market) at the time of their launch was as follows: Ahmadinejad: US$45; Rouhani: US$4.5; Raisi: US$13.5 or US$10, depending on the income decile.

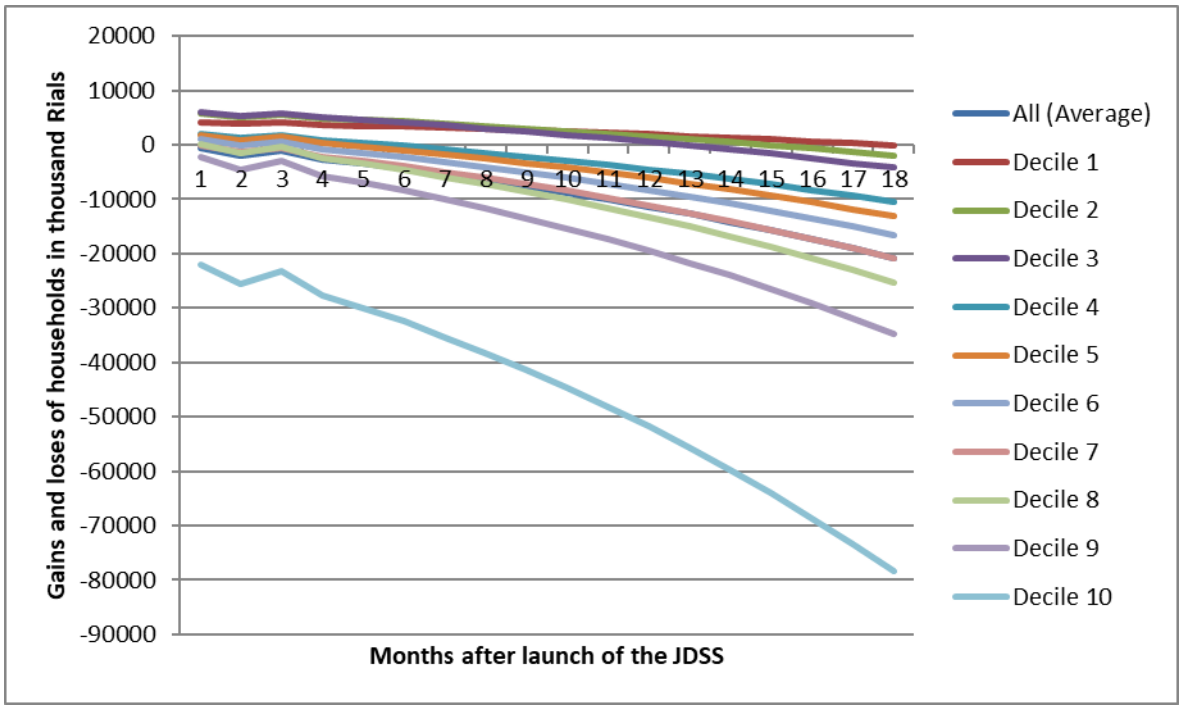
Figure 3: Gains and losses of people in urban areas from the JDSS by income decile during the first 18 months after the launch of the scheme



Source: Author's work based on data presented in Tables A3 to A14 in the Annex

These findings are visualised in Figures 3 and 4. As evident from both figures, decile 10 of the urban and rural populations are outliers because they have been gradually omitted from the original cash transfers that started in 2010 and receive no cash payments under the Raisi scheme. It should be noted that, when calculating the results for these tables and figures, it is assumed that all other factors are fixed (e.g. income and wealth). Any other changes in the policy environment may affect the situation in a positive or negative way for various groups in the population. Another important issue is the impact of inflation on the various income deciles of the population as well as the relative value of their wealth. So, although the richest groups may have more living expenditures and less or no compensation via cash transfers (compared to the poorest groups), the overall impact on their incomes and wealth may be far more positive. According to the World Inequality Database (2022), the top 10 per cent of the population possess 62 per cent of the wealth and 52.4 per cent of the income in Iran. These figures are 3.9 per cent (share of wealth) and 12.8 per cent (share of income) for the bottom 50 per cent of the population. Therefore, any scheme with inflation consequences turns the poorest deciles of the population into the main losers and the richest decile into the main gainer. While this issue is beyond the agenda of the current research, it raises a crucial question for future research.

Figure 4: Gains and losses of people in rural areas from the JDSS by income decile during the first 18 months after the launch of the scheme

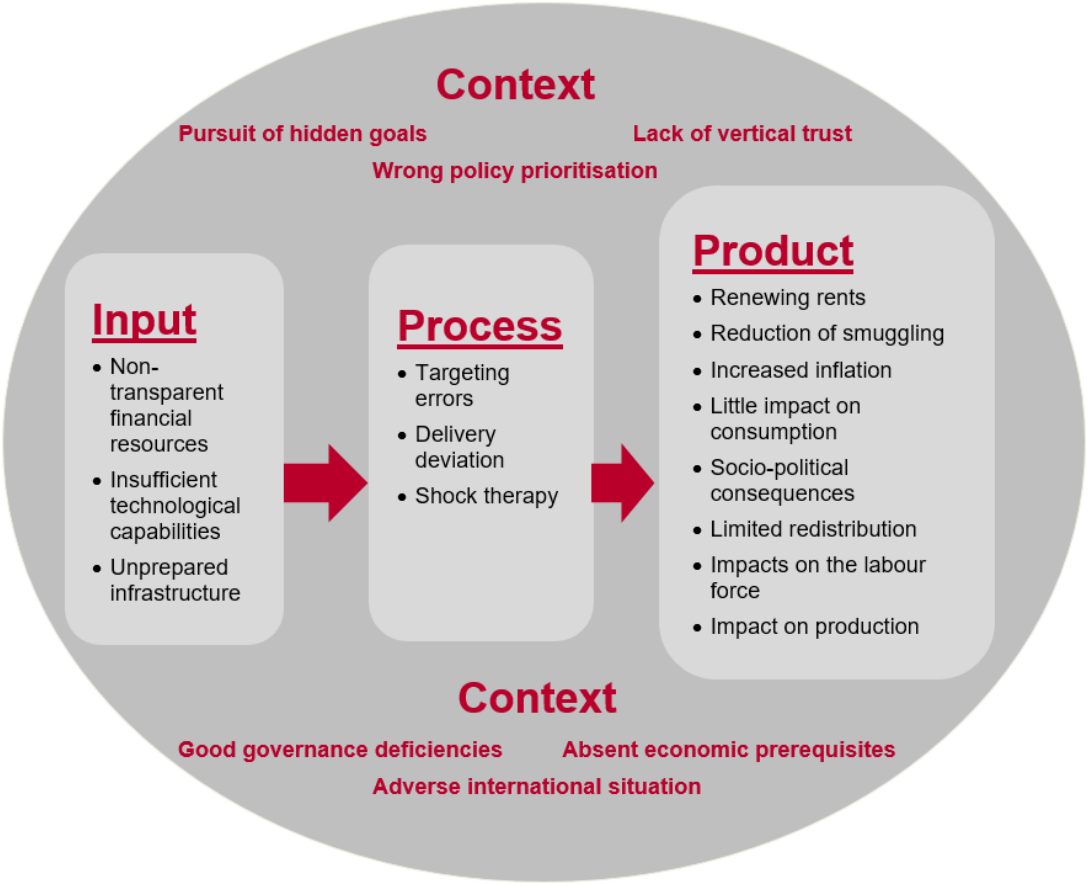


Source: Author's work based on data presented in Tables A17 to A27 in the Annex

6.2 Jeopardising the success by ignoring the context?

Although there was widespread consensus among the experts on the negative aspects of the PFER policy and the need to reform it (discussed in Section 2.2), little agreement existed on the contextual aspects of the new scheme, that is, those aspects in the framework conditions that had to be met before the scheme could be set up. It is argued in the following that the framework conditions have not been appropriate for such a reform and could hinder the achievement of the goals of the JDSS altogether, or at least nullify it. The following section discusses several aspects of the policy environment (such as international relations, economic situation, governance, vertical trust and the challenge of resources) right before and at the beginning of the JDSS that have had negative impacts on the scheme, according to the experts. Figure 5 summarises this contextual framework and puts various elements of the scheme (context, input, process and product) within this holistic framework using the CIPP model of evaluation. It is noteworthy that this model is used to frame the thematic analysis of experts' evaluations of the scheme.

Figure 5: Summary of experts' evaluations of the JDSS using the CIPP model



Source: Author

6.2.1 Absent economic prerequisites

The implementation of a subsidy reform in an environment that is marked by a lack of economic growth (and even negative growth), chronic budget deficits, weak foreign currency reserves, high inflation and the lack of real competition may hinder its success. This was the case with the Iranian economic environment right before the launch of the JDSS. In line with Sdralevich et al. (2014) – who point to the existence of favourable economic conditions, particularly higher economic growth, as one of the six key determinants for the success of the subsidy reform – there is agreement among many experts in Iran that economic reforms should be undertaken during a relative economic boom, whereas governments in Iran forget about the necessity for those reforms when they have high revenues from oil and non-oil exports. It is important that the government does not introduce subsidy reforms as a way to mitigate their budget deficits and that they possess enough (stable) foreign currency reserves to overcome any serious fluctuations in the market. It is believed that these prerequisites were missing when the JDSS was launched (see e.g. Sarzaeem 2022b; Warning of 61 Economists, 2022). This is not to say that a government in a crisis situation should not make any reforms, but it should prioritise other measures that have fewer negative impacts on the daily lives of the people (as discussed below).

Moreover, the government budget faces chronic deficits due to the imbalance between public expenditures and revenues. According to most economists, the restoration of a balanced budget would take priority over any other reform.

> However, stabilising reforms are not only politically undesirable but also may have high political risks, especially in the current situation, since a more than 50-year trend [in budget planning] has to change. The government continues to exist based on creating liquidity, while reforming and controlling this liquidity means a very strict budget with a balance between revenues and expenditures. (Nili, 2022)

As mentioned in the previous section, high inflation – alongside other causes for the devaluation of the national currency – makes any cash transfer initiative in Iran ineffective very quickly. Therefore, the adoption of serious solutions for the continuous and stable control of inflation should precede any price adjustment. "Inflation control is the most important item among stabilising reforms, which must be undertaken alongside market reforms" (Madanizadeh, 2022).

Real competition in the market is a crucial economic prerequisite that should be guaranteed before any food subsidy reform is introduced. Some commentators argue that the current oligopolies[18] importing basic commodities are a major barrier for any successful reform. Although it may seem to be less relevant to a "cash transfer module" as compensation for subsidy cuts, it is vital for ensuring that food items are provided to the consumers at reasonable prices. According to Hashemkhani (2022b), "some factories have not been able to get permission for the import of soya and corn for three years, and therefore had been forced to purchase it at five times the expense from a monopolist importer". Removing these oligopolies will make it easier to access cheaper food items in the domestic market, since a more diverse array of importers could import basic commodities from various sources and supply them at reasonable prices (see e.g. Madanizadeh, 2022; Warning of 61 Economists, 2022).

6.2.2 Good governance

The success of any economic and social policy reforms also often depends on the quality of governance. Although transparency, accountability, rule of law and a responsive bureaucracy are vital to ensure effective subsidy reforms that have real benefits for the people, these elements were lacking when the JDSS began. For example, there was no transparent and reliable information for either the general population or the experts about the exact criteria and methodology used for dividing people into various income deciles, which resulted in widespread dissatisfaction and complaints. It should be also mentioned that the responsible authorities were not responsive enough when dealing with people's numerous complaints about being omitted from the scheme or about their ascribed income decile. Moreover, information about the expected savings (due to the subsidy cuts) and costs of the scheme were not published alongside the initial introduction of the scheme in the annual budget. Because of these weaknesses in governance, a group of economists pointed to the issue that

> the country ranks 150 out of 180 countries in terms of combating corruption and 127 out of 200 countries in terms of the quality of governance indicators […] we have not been able to benefit from many golden opportunities due to weak governance. (Warning of 61 Economists, 2022)

Of vital importance among the good governance indicators is the quality of e-governance, including a reliable and comprehensive welfare database (Fazeli, 2022). For example, this element could decrease targeting errors in subsidy reforms to a great extent; this issue is discussed in Section 6.3.2.

18 These are individuals and companies that are connected to those in power and have exclusive permission to import certain commodities and can prevent others from entering the field and competing with them.

6.2.3 Adverse international situation

A plausible argument put forth by most commentators is that international factors have a strong impact on the domestic policy-making environment in Iran and that, given the multiple problems of the country at the international level, it is a priority to address them before any serious economic reform or "economic surgery" is undertaken. As Davarpanah (2022) puts it:

> Reforms and even surgeries are necessary in Iran's economy, but not under a sanctions scenario! The economy is not an endogenous system […] you cannot expect any sustainable and developmental relief in an economy under circumstances of sanctions and disconnection from fruitful and sustainable economic collaborations.

Since "international tensions have increased the level of uncertainties for the Iranian economy to a great extent […] rising prices of basic commodities and the removal of the PFER is unable to bring about any serious change" (Karimi, 2022).

According to Hashemkhani (2022c), "It is one of the worst times for the removal of the PFER, since the complexity of our foreign policy is at its climax, the probability of the nuclear deal revitalisation is at the lowest level and the circumstances of the international economy is very intense and contains shocks." Similarly, Sarzaeem (2022b) argues that "it would have been more comfortable and less costly to implement the removal of the PFER policy if the nuclear deal (JCPOA) had been revitalised and oil revenues were increasing." If the government is seeking a sustainable policy environment, then "removing the barriers of relations with international markets and observing their standards and rules, which is absent in this so-called economic surgery, is an influential factor in stabilising the foreign exchange rate" (Soori, 2022a). Easy and low-cost access to global markets, including for basic commodities and services as well as resources, was also mentioned as a crucial prerequisite for the successful economic reforms (including the food subsidy cuts) in the open letter of economists (Warning of 61 Economists, 2022).

6.2.4 Lack of vertical trust

Various phases of subsidy reforms in Iran and its negative impacts on people's lives have led them to become suspicious about any such policy initiatives. As Mostafavi Sani (2022) states, "The psychological effects of removing the PFER is a serious challenge for the scheme, since public trust in the government has decreased drastically due to continually rising prices, so public opinion tends to conclude that the government is not able to control the inflation." Therefore, many experts have pointed out the necessity of persuading the public well in advance. "It was essential to provide an integrated and straightforward framework at least six months before the launch of the scheme and before it was delivered to the experts, businesses and the public" (Hashemkhani, 2022c), whereas the scheme "was launched harshly and there was no plan for convincing the public" (Davarpanah, 2022). Given the above-mentioned situation, it is not surprising that the results of a national survey on public attitudes towards the subsidy reform and distribution of electronic vouchers by the Opinion Poll Center of the Parliament, published in August 2022, revealed that 60.6 per cent of the population had negative attitudes concerning the entire food subsidy reform programme (Parliament Research Center, 2022).

6.2.5 Wrong policy prioritisation

Most commentators pointed out that, given the current main challenges of the Iranian economy, some other policies should be prioritised over subsidy reforms in relation to food and basic commodities. Meidari (2022) argues that price adjustments are a marginal problem that overshadow many essential problems. Related to the above-mentioned evaluation of the

existing economic situation, some of the main policy priorities that should be adopted before price adjustment are as follows: removing unnecessary items from the annual public budget,[19] as they are avoidable and have no negative impacts on the basic functions of the government and people's livelihoods (Warning of 61 Economists, 2022); stabilising reforms, especially controlling the inflation (Madanizadeh, 2022; Mostafavi Sani, 2022; Nili, 2022; Soori, 2022b); reforming the banking and taxation systems as the main sources of inequality and injustice (Mostafavi Sani, 2022); and effective surveillance over the market (Mohseni Bandpay, 2022).

6.2.6 Hidden goals

Most experts seem to be suspicious about the genuineness of the goals of the scheme. Although successive governments have stated goals such as equalising various income groups in the entitlement and use of public resources (general subsidies paid out for basic commodities or energy carriers), combating corruption, alleviating poverty as well as enhancing citizens' choices through direct cash transfers, commentators usually see these initiatives as cover policies to pursue hidden goals. Afghah (2022a) believes that, since the government was facing a serious budget deficit due to sanctions and an inability to sell petroleum, the main goal behind the JDSS was to obtain revenues. Similarly, Bagheri (2022) argues that financial authorities are always seeking ways to generate revenues for the government, but since it is very difficult to do it through taxation of the rich and cutting the budgets of influential interest groups, it is done by expropriating the resources of the middle- and lower-income classes. Raghfar (2022a) believes that continually raising the foreign exchange rate from 1993 till 2022 was done to solve the budget deficit, cover for the government's lack of financial discipline and ultimately serve the interests of the oligarchy. The open letter of 61 economists (Warning of 61 Economists, 2022) also claims that the scheme is an emergency and temporary measure to solve the budget deficit problem during sanctions, that it is meant to compensate for the global food price crisis following the Ukraine war, and that it cannot be regarded as an economic reform plan.

6.3 The question of resources: the need for more transparency and consolidation

Previous phases of subsidy reforms that have been implemented since 2010 suffered from funding problems. Although the JDSS suffers from a lack of transparency regarding financial resources (since no accurate data was included in the original budget bill), it does not seem to face imbalances regarding the savings (due to subsidy cuts) and costs of the scheme. However, serious weaknesses in relation to the technological and information resources (discussed below) have led to targeting errors and the postponement of the "electronic voucher" phase of the scheme. These issues are discussed in the following subsections.

6.3.1 Financial resources

One of the main concerns of experts with regard to the new scheme was its financial resources. In an open letter to the public, 61 economists mention that no accurate information was available on the financial resources of the new scheme and the possible imbalances regarding its savings and costs.

19 As with budgets of numerous loss-making governmental economic firms, the budgets of parallel governmental and pseudo-governmental bodies, as well as spending on ever-extending ideological apparatuses.

> Even for the first time in recent decades, tables on funding and expenditures of the explicit subsidies (table of article 14 of the government's public budget) were not published alongside other parts of the Budget Act, so it is not possible to comment on and evaluate it. (Warning of 61 Economists, 2022)

A controversial issue with regard to the scheme's budget is that, according to some analysts, not all of the funding is allocated to the people. Therefore, some of it may be used to reduce the government's budget deficit, especially if the amount paid to the people remains fixed over a period of years: "It is estimated that the government will save about 2,000,000 billion rials by removing the PFER, but only 650,000 billion rials will be allocated to the people, according to the Parliament's Act" (Raghfar, 2022b). Similarly, Mostafavi Sani (2022) estimates that the savings as a result of removing the PFER will be at least two times greater than the budget allocated to direct cash transfers under the new scheme. Although the scheme's financing has still not been made transparent, a more accurate estimation is possible after nine months of it having been launched. The Budget Bill for fiscal year 1402 (2023-2024) calculates the expenditures of the cash transfer scheme to be 3,150,000 billion rials. If the annual US$20 billion allocation for basic commodities (see the introduction) is considered as the basis for the calculation, the government's savings due to the removal of the old PFER would be at least 4,860,000 billion rials – that is, the difference between the old PFER (42,000 rials per US dollar) and the new rate (285,000 rials per US dollar) declared in January 2023. Since the government is a major consumer in the Iranian economy, it is not clear whether the remaining amount (4,860,000 billion rials minus 3,150,000 billion rials = 171,000,000 billion rials) is higher than that of the occurring costs (of new prices for goods and services affected by the scheme and consumed by the governmental apparatus) or not.

6.3.2 Technological capabilities

Furthermore, the technical capacities were insufficient to run any of the proposed modalities, that is, cash transfers (favoured by the government) and electronic vouchers (favoured by the Parliament). On the one hand, the nationwide infrastructure needed to provide 90 per cent of the population with a monthly basket of food items (through electronic vouchers) was missing. On the other hand, the welfare database is weak, which makes the targeting practices problematic. Both modalities are being followed by the government at the moment, and the capabilities that are lacking in each case are addressed below.

Technological capabilities – especially in terms of a nationwide system of distribution of basic commodities under the "electronic voucher" – form an important aspect of the input element. Although it was mandated by the Parliament that the savings resulting from the removal of the PFER (see the previous section) would be allocated to households in the form of electronic vouchers to purchase a defined basket of basic food items (at fixed prices as of September 2021) right from the beginning, the government started the scheme before providing the necessary infrastructure, and it initially declared that the cash transfer scheme (instead of the voucher scheme) would be in place for just two months until the government could finalise the voucher system. However, it has not been able to implement it, even nine months after the launch of the scheme.

The lack of proper ICT capacity and resources for a national database on welfare-related data to perform reliable means-testing and differentiate among various income and expenditure deciles of the population has led to problems and discontent among the populace. It is now nearly nine years since the Rouhani administration established the Iranians' Welfare Database (IWD) (Ministry of Cooperatives Labour and Social Welfare, s.a.) by connecting multiple databases of various bodies. It has been used for the purpose of means-testing as well as for other welfare-related purposes during previous phases of the cash transfer scheme or for their adjustment. However, the database is far from flawless. Ali Heydari, Vice Chairman of the Board

of Directors of the Social Security Organization (the largest social insurance organisation of Iran) states that there is a wide gap between the existing and the desired situation of the IWD, since it does not include information on every inhabitant and household in the country, including variables such as national ID, zip code, activity or employment ID. He adds that there are even many overlaps or gaps in information between the databases of various departments and subsidiary organisations under the Ministry of Cooperatives, Labour and Social Welfare (Heydari, 2022). While describing the IWD as containing information from 50 sources (25 of which are complete) and more than three billion records, Fazeli (2022) admits that there was no proper collaboration among all the relevant authorities.

Afghah (2022b) believes that policy-makers are still facing weaknesses in identifying the real target groups and lack accurate information about the various income groups in the society. Therefore, many people are dissatisfied with their categorisation in terms of income deciles. According to Hashemkhani (2022c), many people even believe that far less than 70 million individuals (90 per cent of the population) are receiving the new transfers. Pointing to the fact that there are hundreds of thousands of Iranians, refugees, displaced and illegal immigrants who are not covered by the existing social insurance and social assistance programmes, Jalaeipoor (2022) argues that completing the database of the existing IWD as well as providing the relevant data about all of the above-mentioned groups who have been left out of the existing welfare programmes is an essential prerequisite of any new policy.

As a result of all of the above-mentioned weaknesses, millions of people rushed to the online database to register their complaints when they found out that their households had not been recognised as eligible to receive the new cash transfers. Moreover, the website became unavailable for several hours, given the high number of people who were visiting the website simultaneously.

6.4 Implementation challenges

The above-mentioned weaknesses in the funding of the programme have led to serious shortcomings in its implementation, including targeting errors and persistent delivery deviations. These weaknesses have led to a notable level of distrust in the public.

6.4.1 Targeting errors

The two targeting errors of the welfare programmes are excluding some of those who are eligible and benefiting others who should not be. There are various reasons for these errors, including vague criteria for eligibility, improper information campaigns (which exclude certain groups, such as those in remote areas or illiterate groups, from accessing benefits) and weak monitoring. Apart from serious shortcomings and flaws in the IWD, which have resulted in the exclusion of a high number of individuals and households, inaccurate and disputed measures for means-testing or exclusion have been criticised by commentators. Many experts view the criteria for defining the income deciles of the population as non-transparent and inaccurate (see e.g. Davarpanah, 2022; Hashemkhani, 2022c; Raghfar, 2022b). Some experts believe that these criteria and the applied method of defining the income deciles leave behind some of the most disadvantaged groups: “Government’s policy regarding the bread issue is not transparent […] it is said that there are several million refugees/immigrants in the country. Don’t they work in this country? If they work, shouldn’t they be able to afford to eat bread?” (Raghfar, 2022a). Similarly, Jalaeipoor (2022) argues that some segments of the country’s population who are among the neediest, such as refugees, the displaced, illegal immigrants and those with no national IDs, have been excluded from receiving the new cash transfers.

6.4.2 Delivery deviations

Inconsistencies between the programme's intentions and design and the effectiveness of its delivery are a sign of the policy's weakness. As mentioned before, although the Parliament's Budget Act obliged the government to distribute electronic vouchers and allocate specified amounts of credit for each household to buy certain basic commodities on a monthly basis, the government turned the scheme into a direct cash transfer (originally for two months before continuing for several more months without providing a fixed date for the launch of the electronic vouchers). Cash transfers may also fail to reach their intended objective (e.g. food security) and "could be ineffective in reaching the target groups" (Warning of 61 Economists, 2022), since people may spend them on other needs (Afghah, 2022b), such as rising housing costs, instead of spending them on food or medicine.

6.4.3 Gradual or all at once?

Many commentators in Iran, especially economists, agree with the government that it was necessary to remove the general subsidies, but they do not agree with the shock therapy manner in which the reform was implemented. They would have preferred a more gradual process of subsidy cuts. This viewpoint is supported by the findings of Clements et al. (2013), who mention "appropriately phased price increases" as one of the six key ingredients for successful reform, as well as Sdralevich et al. (2014), who argue that a "gradual pace of adjustment" is among the main factors of success in subsidy reform schemes across the world.

According to Meidari (2022), while four post-war administrations[20] have adopted shock therapy approaches to adjust prices, it was the Khatami administration that undertook a gradual approach to adjust the prices for energy carriers and some food items by 10 per cent annually – it was the most successful example (although the whole price adjustment initiative was stopped by the opposing majority in Parliament at that time). Momeni (2021) believes that nothing like shock therapy pushes society towards abnormalities and anomie. According to him, various waves of shock therapy in Iran – beginning with the Structural Adjustment programme in the post Iran–Iraq war period – have had adverse impacts on elements such as the state–nation relationship, the population's physical and psychological health, as well as the environment. Similarly, Madanizadeh (2022), Nazeran (2022) and Afghah (2022c) believe that shock therapy is not a suitable approach to subsidy reform, since it ends in uncontrolled waves of inflation, provokes social unrest, aggravates economic instability and threatens the living conditions of vulnerable groups. The open letter of 61 economists to the public (Warning of 61 Economists, 2022) also supports the idea by stating that "any policy decision that includes destabilising shocks for vulnerable groups should be completely avoided", especially for basic commodities such as wheat (until the current global food security concerns have passed) and medicine (until compensatory mechanisms in the social security system have been established).

6.5 Achieved objectives or failed ambitions?

There are mixed opinions among analysts concerning the outcomes, impacts and consequences of the JDSS. Generally, most economists as well as other commentators agree that some general subsidies, and specifically the PFER, are regressive by nature and benefit the well-off more than the needy. However, most of them doubt that the new direct cash transfer scheme in Iran has been, and can continue to be, successful in eliminating all the negative

20 These are the Hashemi Rafsanjani, Khatami, Ahmadinejad and Rouhani administrations, which were in power after the end of the Iran–Iraq war.

aspects of the old policy while fulfilling its own goals. Some of the main outcomes and impacts of the new scheme are discussed below.

6.5.1 Abolishing or creating more rents?

Pro-government analysts see the new scheme as a revolutionary initiative in abolishing the existing rents for those influential individuals and companies in the economic chain that control the process from import to consumption. Mesbahi Moghaddam (2022b) believes that the substantial decrease in widespread corruption and rents in the allocation of the PFER for basic commodities is a positive aspect of the new scheme. This is because the people who were the main importers of the raw materials for food and medicine benefited from the previous policy more than ordinary people (some of them even imported raw materials with the PFER, but the products were sold to people at the free market foreign exchange rate).

Other analysts who may not necessarily support the government (in terms of political orientations) also agree with this idea. Ashtarian (2022) criticises the media for ignoring the positive aspects of the new policy concerning the combating of widespread corruption and rents in the management of flour and bread in the country. Hashemkhani (2022b) estimates that the rents distributed during the 3.5 years of PFER policy were about 18 times greater than the annual cash transfer amounts paid to the people, and no one could find such an example of "structural corruption" in any other field. Similarly, Leylaz (2022) believes that more than 70 per cent of the PFER benefits reached brokers and billionaires.

A notable issue in this regard is that although some kinds of rents for certain people may be stopped, other people or companies may replace them under new policies. It is ironic that the Raisi administration started a new kind of "preferential foreign currency rate" just eight months after abandoning the previous one (and launching the JDSS) while refraining from using its exact title. Facing an extraordinary economic situation following nationwide protests (starting in September 2022), which lasted for more than three months, diminishing hopes of revitalising the JCPOA, the unprecedented inflation rate as well as historical devaluation of the national currency, the Chairman of the Central Bank was changed in December 2022, and the newcomer (Mohammad Reza Farzin) declared a fixed rate of 285,000 rials for each US dollar.[21] The vice president declared that this fixed rate would be in place for at least two years to control inflation, so a new platform was created for newcomers to use the related rents. Therefore, it could be argued that the rents did not disappear but merely changed form.

On the other side, there are analysts who see even more advantages for certain well-off groups under the new policy. For instance, Momeni (2022) argues that no rent is equal, in terms of quantity, to the rents created by inflation-producing policies. Referring to the formal statements by authorities who estimated between 7.5 per cent and 10 per cent inflation following the launch of the scheme, he invites experts to calculate the rents created by this rate of inflation: for example, those who have large amounts of commodities in their stocks (purchased with the PFER and to be sold at new prices) or those who possess about 60 million pieces of gold coins (which experienced a price increase of more than 5,000,000 rials in just two months, which is equal to 300,000,000,000,000 rials of new rent!). "All of these rents are at the expense of pick-pocketing from the helpless wage earners, who are no longer able to meet their basic needs with limited incomes" (Momeni, 2022). As mentioned in Section 6.1.2, inflation first hits low-income people and those with few savings. People with higher incomes usually invest their savings in assets (such as gold, foreign currencies, real estate, company shares, etc.) that can withstand inflation.

21 Each US dollar was nearly equal to 416,000 rials on the unofficial black market, and it reached a threshold of 500,000 rials at the end of February 2023.

6.5.2 Less smuggling

One of the major positive impacts of removing the general subsidies, including the PFER, for basic commodities is the decrease in the level of smuggling (of subsidised items such as flour, meat, cooking oil, medicine) to neighbouring countries. Governments usually assert that, given the considerable differences between the prices of subsidised commodities in Iran and their prices in destination countries, the large number of neighbouring countries, as well as the long and sometimes relatively easy-to-cross borders, a massive amount of these commodities is trafficked to other countries.

> We have nearly 2,400 kilometres of common borders with 15 countries [including countries with sea borders], and smuggling occurs from all regions because it is not possible to control this smuggling. Smuggling can only be stopped when prices of basic commodities are similar to those in neighbouring countries. (Mesbahi Moghaddam, 2022c)

It is claimed that Iran is paying general subsidies to about 15 million inhabitants in neighbouring countries (Argoon, 2022), and the removal of the PFER could reduce the amount of smuggling and redirect subsidies towards Iranian citizens through direct cash transfers. Mesbahi Moghaddam (2022c) believes that a prominent advantage of the new scheme is that it combats against the smuggling of basic commodities. The idea that smuggling is a major consequence of the general subsidies is shared by many commentators such as Abdi (2022) and Hashemkhani (2022a), although they may not agree that the new scheme has been successful in combating it.

On the contrary, Davarpanah (2022) argues that it is not wise to increase the prices of basic commodities (and put the main burden on ordinary people) because of the weaknesses in the supervision and monitoring of the distribution system, with regard to preventing smuggling. Moreover, Raghfar (2022a) believes that governments manipulate the statistics on smuggling whenever they decide to liberalise prices for basic commodities: “They say that two million tonnes of flour is smuggled each year […] This means that several thousand pickup trucks of flour are crossing the borders [each day].”

In conclusion, although it is clear that removing the high price differences that exist between Iran and neighbouring countries is effective in reducing the smuggling problem, there is no accurate data on the extent of this problem and the exact impact of price adjustments in addressing it.

6.5.3 Optimisation of consumption behaviour

A notable argument for reforming various kinds of general subsidies that has been shared by successive administrations is that Iranians consume items such as petrol, electricity, gas, water, medicine and bread at a much higher rate than the rest of the world, according to international averages. Thus, the magic policy instrument for optimising people’s consumption patterns or behaviours is to remove general subsidies. For example, Mesbahi Moghaddam (2022d) states that although it is enough for Iranians to consume about 9 million tonnes of flour per year to satisfy their needs, the actual consumption amount is 12 million tonnes (he supports this idea by adding that flour consumption levels reduced from 12 to 9 million tonnes during the previous bread price adjustment phase in 2010). Moreover, about 30 per cent of bread is thrown away as waste, however price reforms could prevent extravagance and waste. Similarly, Khadem (2022) believes that the subsidisation of bread has led to excessive consumption and waste; it has even become a widespread practice to use bread as food for animals (given the low quality of the bread and the fact that subsidised bread is cheaper than barley). Therefore, he argues that removing the PFER will benefit the economy and the people by correcting this situation. However, Raghfar (2022a) disagrees with this argument, since bread is the main food item for

most Iranians, especially in deprived areas, and they usually shift towards consuming more bread if other food items such as meat become more expensive.

It is noteworthy that a major reason for higher consumption rates with regard to several subsidised items such as bread and energy relates to malfunctions during the production and distribution phases (and not the consumption phase). Outmoded technologies result in less-efficient production, and distribution malfunctions lead to the waste of products. However, since it is hard to reform and optimise these phases, governments usually believe cutting the subsidies is the best way to lower consumption levels. For example, a large amount of the highly subsidised electricity and water is wasted in the production and distribution system. Similarly, given the low standards for car production and the lack of sufficient and competitive car imports (due to sanctions and monopolies), obsolete automobile technologies lead to fuel consumption patterns that are several times higher than if more modern technologies were used. It is also a fact that green transport technologies are rarely used due to long-standing sanctions, which prohibit technology transfer.

6.5.4 Socio-political consequences

Given previous experiences with social and political unrest following subsidy reforms, many commentators predict similar reactions. In their open letter to the public, 61 economists warned that the current

> situation of the country is very fragile, and insisting on removing the subsidies in this miserable time will end people's patience and bring about a confrontation between the people and the government or the whole system – a confrontation that could be very costly for both sides. (Warning of 61 Economists, 2022)

In the same way, Afghah (2022c and 2022d) predicts that similar unrest, such as what happened in 2017 and 2019, may be repeated and damage both the government and the people. However, the country did not experience immediate unrest due to these economic reforms. This may be attributed partly to public communication campaigns that started a long time before the launch of the scheme, as well as the considerable amount of cash transfers to nine deciles of the population prior to price rises for food items.

6.5.5 Redistribution and justice?

Whether the new scheme leads to a better redistribution of public resources towards the lowest income groups or not is a disputed issue. In fact, the new scheme's name (Just Distribution of Subsidies Scheme) is chosen to convey this message. Khadem (2022) believes that the payment of new cash transfers has led to decreases in the gaps between the lower and upper classes. Mesbahi Moghaddam (2022a) also believes that a fairer distribution of subsidies towards lower-income deciles and the deprived classes of the population are advantages of the new scheme. Similarly, Hashemkhani (2022a) and Sarzaeem (2022c) see positive impacts for the new scheme in terms of redistribution towards the less well-off.

However, it is more reasonable to agree with those commentators who argue that this marginal positive impact is erased by negative aspects such as inflation, devaluation of the national currency and the resulting rents for the well-off, all while ruining the purchasing power of the poor (Afghah, 2022c; Momeni, 2022; Raghfar, 2022d; Soori, 2022a). "It is a sad story which they are telling us that they are going to implement justice […] by increasing the prices" (Sobhani, 2021), and "Evidences about removing the PFER indicates that the main reason for changing this policy is the government's budget deficit, not the other reasons and justifications, such as the just distribution of resources" (Mostafavi Sani, 2022).

6.5.6 Impacts on the labour force

Some commentators argue that the new policy has negative impacts on the most deprived segments of the labour force.

> Many big enterprises that face rapidly increasing costs [due to the removal of the PFER and sharp increases in prices of their input items] and diminishing demand have attempted to adjust their human resources. This means that with a decreasing shares of wages in the national income, it was the workers who lost the most with this policy. (Warning of 61 Economists, 2022)

Momeni (2022) believes that with each wave of foreign exchange shocks,[22] the country faces a new wave of emigration among the labour force, especially the educated and high-skill group,[23] and the political system is giving its valuable human resources to other economies. Similarly, Shakeri (2022) argues that these kinds of economic reforms or "surgery" devalue the human resource in relation to the various commodities and result in brain drain. Focusing on the food industry, Nazeran (2022) predicts that some workers in non-traditional bakeries will lose their jobs since some of the demand will shift towards traditional breads (given the fact that the quota of non-traditional bakeries for subsidised flour has been omitted).

To conclude, the devaluation of the national currency after each foreign exchange shock means that wage earners lose a considerable portion of their purchasing power, and therefore those with higher qualifications and skills (for which there is a high demand abroad) are more likely to emigrate. However, there is not enough empirical evidence to determine the exact effect of this factor, compared to other socio-political and economic factors.

6.5.7 Impact on production

Some commentators argue that removing the PFER and increasing the prices to actual market levels encourages the producers to increase production. For example, Mesbahi Moghaddam (2022c) views the increase in the supply of chicken and eggs in the weeks following the launch of the scheme as a positive indicator of a production boom, which led to prices that were lower than the newly defined prices of the government. However, this provisional decline in prices (which was reversed after two months) seems to have been mainly due to a widespread temporary boycott by consumers, who refused to buy chicken for a short time after the launch of the scheme. Although they hoped that chicken producers would continue to reduce prices, the opposite situation happened. When the supply of chicken in home refrigerators was used up and people started to buy chicken at the new prices, these prices continued to increase.

On the contrary, it is more conceivable to support the idea of those analysts who believe that the scheme will inevitably have negative impacts on production. A group of economists explicitly indicated in their open letter to the public that the "economic surgery" policy was hastily implemented, without time for essential preparation, including about how to compensate for losses by producers (Warning of 61 Economists, 2022). Soori (2022c) predicts that "many economic enterprises will be forced out of the production chain since their internal rate of return lags behind the inflation rate in such a shocking inflationary situation." In the same way, Raghfar (2022b) believes that "production will be disrupted with the new PFER policy and a brokering economy will grow." Finally, Karimi (2022) argues that the new policy will add to economic

22 In the case of recent subsidy reforms, the removal of the PFER for basic commodities, including food items, led to a dramatic foreign exchange shock.

23 Devaluation of the national currency after each foreign exchange shock means that wage earners lose a considerable proportion of their purchasing power, and therefore those with higher qualifications and skills (for which there are high demands abroad) are more likely to emigrate.

uncertainty and tensions, and that it will discourage economic growth due to high risks in the business environment (which is already being affected by economic sanctions).

7 Conclusions and recommendations

This discussion paper addressed an important question: Under which conditions is a reduction or full elimination of food subsidies recommendable, and what challenges might such a reform entail? After reviewing the literature on subsidy reforms and the main challenges faced by governments in implementing successful reforms, the paper focused on the most recent experiences with food subsidy reforms in Iran and attempted to provide the reader with some lessons learnt from these experiences. Since there is not a general consensus on the desirability of food subsidy reforms and because they constitute a policy dilemma for policy-makers in various countries across the globe, including in the MENA region, the paper proposes some conclusions and policy recommendations that may be of relevance to many countries beyond the case of Iran.

The Just Distribution of Subsidies Scheme was launched in May 2022 with a plethora of glorious rhetoric about social justice, economic enhancement and pro-poor redistribution. However, it was not fully welcomed by economists or other social scientists, and it was met with high levels of pessimism among the public, who had had unpleasant experiences (mainly due to the subsequent inflation and diminishing purchasing power) with the previous phases of general subsidy reforms. Although Raisi's administration is reluctant to admit any flaws in the scheme, it was forced to start a new kind of "preferential foreign currency rate" (mainly due to unprecedented inflation) just eight months after abandoning the previous one. Therefore, it just took less than a year for the government to forget all of the justifications it had presented to the public for abandoning the PFER policy of the Rouhani administration.

Getting back to the theoretical framework (Section 4) of this research, several conclusions can be provided. As a first point, one can recognise the lack of "state capacity" required to design and implement a genuine subsidy reform and deal with its aftermath (Claycomb, 2021). The government that failed to monitor the previous PFER, which led to extensive rent and corruption (see Section 6.5.1), decided to reform it but lacked the necessary capacities, including the proper e-governance mechanisms (which led to notable targeting errors and widespread dissatisfaction). Increasing fragility due to domestic and international factors exposed the government to a kind of dementia and forced it to return to a policy that was condemned wholeheartedly by it just eight months prior.

Although it has been a long time since the "Revolutionary social contract" (manifested in the Constitution and rhetoric of early pioneers) was undermined through the broad Structural Adjustment programme and the removal of public social services (see the Introduction and Momeni, 2007), its remaining elements (general energy and food subsidies) are also gradually being removed or weakened, but with a promise of compensating its beneficiaries with generous and inclusive direct cash transfers, which allegedly bring about more "social justice". However, people have found by experience that this fixed amount of cash vanishes very quickly.

The participation element of the social contract (Vidican Auktor & Loewe, 2022) is also lacking, since there was not any consensus (as recommended by Sdralevich et al. (2014) for the success of the reform) or strong support among a majority of the experts who have already commented on the scheme (as was manifest in the research findings), let alone the general public (which is evident from the opinion polls mentioned in the report).

Although general subsidies may distort the functioning of markets, price liberalisation and price manipulations – especially with regard to basic commodities such as food items – may bring

about social and political consequences such as increasing social inequality, rising levels of poverty and political dissatisfaction and unrest. Free markets are not conceivable only by bolding out one policy domain. Trying to correct market distortions in one area (e.g. subsidies) but ignoring the manipulative role of the government in many other areas of the economy (such as widespread interventions in production, imports, exports, etc.) will lead to more distortions while leaving the most disadvantaged groups of the population desperate to make ends meet.

Given the above-mentioned picture of the existing policy environment, a series of recommendations can be provided based on the findings of this research.

Firstly, reforms of this kind have to take national and international conditions into consideration. In the case of Iran, the determining role of international factors (such as sanctions, the demise of the nuclear deal, limited links with the international economy) and domestic factors (such as declining oil revenues, economic monopolies and political distrust) in the successes and failures of previous policy reforms – including the removal of the PFER for basic goods – indicates the necessity to establish smooth foreign relations and remedy domestic vertical trust before launching any “economic surgery”.

Secondly, instead of reforming food subsides (which may be vital for the food security of the lowest income groups of the population), governments should focus on other, more urgent reforms first. In the case of Iran, there are many other policy priorities (such as restructuring the public budget, dismantling parallel public bodies and reforming the banking and taxation systems) that can have more radical and positive outcomes for social justice and equality and fewer negative impacts on the daily lives of the most disadvantaged people.

Thirdly, the cash transfer solution may become irrelevant without an “indexation element” in an environment of continually increasing inflation and devaluation of the national currency. Therefore, a timely increase in the cash amount and/or a fixed package of food items are necessary for food security.

Fourthly, possible targeting errors in the compensation element of a food subsidy reform scheme must be well-examined before launching the scheme, and they must be continually monitored and fixed throughout the implementation of the scheme. In the Iranian case, it is vital to establish a completed version of the IWD with regular and reliable mechanisms for updates and validation.

Fifthly, although a universal cash transfer scheme is advisable to ensure a more inclusive social contract (Vidican Auktor & Loewe, 2022), the consolidation of other social assistance programmes can also help to improve the equality of outcome regarding basic welfare needs. As explained in Section 3.3 (introducing the scheme), there are several social protection schemes in Iran that cover the lowest income deciles of the population, but they suffer from targeting errors as well as insufficient and unsustainable resources. Given the fact that each wave of subsidy reform had added to the size of the population experiencing poverty, it is vital to consolidate the existing social protection system before there is any “economic surgery”.

Sixthly, proper transparency and access to data by experts is necessary to provide independent evaluations and feedback in order to revise the food subsidy reform scheme. In the case of the JDSS, the government did not include the real figures about revenues or savings (resulting from the removal of the PFER) or expenditures (of the cash transfer element) in the annual budget. Moreover, delays in the publication of inflation data in the months after the launch of the scheme added to the suspicions of the experts.

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Annex

Table A1: Monthly inflation rates in Iran with the introduction of the JDSS and their impact on monthly living expenditures by the different expenditure deciles of the urban population

	Inflation rate (with)*	All	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10
May 22**		**108,491**	**28,497**	**45,576**	**57,251**	**68,493**	**80,461**	**93,883**	**110,344**	**132,297**	**170,662**	**297,556**
Jun 22	11.5	120,967	31,774	50,817	63,835	76,370	89,714	104,680	123,034	147,511	190,288	331,775
Jul 22	4.5	126,411	33,204	53,104	66,707	79,806	93,751	109,390	128,570	154,149	198,851	346,705
Aug 22	2	128,939	33,868	54,166	68,042	81,402	95,626	111,578	131,141	157,232	202,828	353,639
Sep 22	4.4	134,613	35,358	56,549	71,035	84,984	99,834	116,487	136,912	164,150	211,753	369,199
Oct 22	3.6	139,459	36,631	58,585	73,593	88,044	103,428	120,681	141,841	170,060	219,376	382,490
Nov 22	3.6	144,479	37,950	60,694	76,242	91,213	107,151	125,025	146,947	176,182	227,273	396,260
Dec 22	3.7	149,825	39,354	62,940	79,063	94,588	111,116	129,651	152,384	182,701	235,682	410,921
Jan 23	3.7	155,368	40,810	65,269	81,988	98,088	115,227	134,448	158,022	189,461	244,403	426,126
Feb 23	3.7	161,117	42,320	67,684	85,022	101,717	119,490	139,423	163,869	196,471	253,445	441,892
Mar 23	3.7	167,078	43,886	70,188	88,168	105,481	123,912	144,582	169,932	203,740	262,823	458,242
Apr 23	3.7	173,260	45,510	72,785	91,430	109,383	128,496	149,931	176,219	211,278	272,547	475,197
May 23	3.7	179,671	47,194	75,478	94,813	113,431	133,251	155,479	182,740	219,096	282,632	492,779
Jun 23	3.7	186,319	48,940	78,271	98,321	117,627	138,181	161,231	189,501	227,202	293,089	511,012
Jul 23	3.7	193,212	50,751	81,167	101,959	121,980	143,294	167,197	196,512	235,609	303,933	529,920
Aug 23	3.7	200,361	52,628	84,170	105,731	126,493	148,595	173,383	203,783	244,326	315,179	549,527
Sep 23	3.7	207,775	54,576	87,284	109,643	131,173	154,094	179,798	211,323	253,366	326,840	569,859
Oct 23	3.7	215,462	56,595	90,514	113,700	136,027	159,795	186,451	219,142	262,741	338,933	590,944
Nov 23	3.7	223,434	58,689	93,863	117,907	141,060	165,707	193,350	227,251	272,462	351,474	612,809
	Total	3,116,242	818,534	1,309,103	1,644,450	1,967,359	2,311,122	2,696,649	3,169,467	3,800,034	4,902,012	8,546,853

Note: *See Table 2 and its explanations in the main text to understand the figures related to the inflation; **see Table 3 and its explanations in the main text to understand the figures about the changes in the monthly expenditures presented in this table.

Source: Author's calculations based on the "Iranian Household Income and Expenditure Survey" data gathered from the Statistical Center of Iran (s.a.-b)

Table A2: Monthly inflation rates in Iran without the introduction of the JDSS and their impact on monthly living expenditures by the different expenditure deciles of the urban population

	Inflation rate (without)*	All	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10
May 22**		**108,491**	**28,497**	**45,576**	**57,251**	**68,493**	**80,461**	**93,883**	**110,344**	**132,297**	**170,662**	**297,556**
Jun 22	3.1	111,854	29,380	46,989	59,026	70,616	82,955	96,793	113,765	136,398	175,953	306,780
Jul 22	3.3	115,545	30,350	48,539	60,974	72,947	85,693	99,988	117,519	140,899	181,759	316,904
Aug 22	3.3	119,358	31,352	50,141	62,986	75,354	88,521	103,287	121,397	145,549	187,757	327,362
Sep 22	3.3	123,297	32,386	51,796	65,064	77,841	91,442	106,696	125,403	150,352	193,953	338,165
Oct 22	3.3	127,366	33,455	53,505	67,211	80,409	94,459	110,217	129,541	155,314	200,353	349,324
Nov 22	3.3	131,569	34,559	55,271	69,429	83,063	97,577	113,854	133,816	160,439	206,965	360,852
Dec 22	3.3	135,911	35,699	57,095	71,721	85,804	100,797	117,611	138,232	165,734	213,795	372,760
Jan 23	3.3	140,396	36,877	58,979	74,087	88,635	104,123	121,492	142,794	171,203	220,850	385,061
Feb 23	3.3	145,029	38,094	60,925	76,532	91,560	107,559	125,501	147,506	176,853	228,138	397,768
Mar 23	3.3	149,815	39,351	62,936	79,058	94,582	111,108	129,643	152,374	182,689	235,667	410,894
Apr 23	3.3	154,759	40,650	65,013	81,667	97,703	114,775	133,921	157,402	188,717	243,444	424,454
May 23	3.3	159,866	41,991	67,158	84,362	100,927	118,563	138,340	162,596	194,945	251,477	438,461
Jun 23	3.3	165,142	43,377	69,374	87,146	104,258	122,475	142,906	167,962	201,378	259,776	452,930
Jul 23	3.3	170,591	44,809	71,664	90,021	107,698	126,517	147,622	173,505	208,024	268,349	467,877
Aug 23	3.3	176,221	46,287	74,029	92,992	111,252	130,692	152,493	179,230	214,888	277,204	483,317
Sep 23	3.3	182,036	47,815	76,472	96,061	114,924	135,005	157,525	185,145	221,980	286,352	499,266
Oct 23	3.3	188,043	49,393	78,995	99,231	118,716	139,460	162,724	191,255	229,305	295,802	515,742
Nov 23	3.3	194,249	51,023	81,602	102,506	122,634	144,062	168,094	197,566	236,872	305,563	532,762
	Total	2,799,538	735,346	1,176,058	1,477,324	1,767,416	2,076,243	2,422,588	2,847,354	3,413,836	4,403,820	7,678,235

Note: *See Table 2 and its explanations in the main text to understand the figures related to the inflation; **see Table 3 and its explanations in the main text to understand the figures about the changes in the monthly expenditures presented in this table.

Source: Author's calculations based on the "Iranian Household Income and Expenditure Survey" data gathered from the Statistical Center of Iran (s.a.-b)

Table A3: Gain or loss of urban population from the JDSS (all households – average)

	AUHOME (with)[1]	AUHOME (without)[2]	Extra costs[3]	Cash transfer[4]	Gain or loss[5]
Jun 22	120,967	111,854	9,113	6,797	-2,316
Jul 22	126,411	115,545	10,866	6,797	-4,068
Aug 22	128,939	119,358	9,581	6,797	-2,784
Sep 22	134,613	123,297	11,315	6,797	-4,518
Oct 22	139,459	127,366	12,093	6,797	-5,295
Nov 22	144,479	131,569	12,910	6,797	-6,113
Dec 22	149,825	135,911	13,914	6,797	-7,117
Jan 23	155,368	140,396	14,972	6,797	-8,175
Feb 23	161,117	145,029	16,088	6,797	-9,291
Mar 23	167,078	149,815	17,263	6,797	-10,466
Apr 23	173,260	154,759	18,501	6,797	-11,704
May 23	179,671	159,866	19,805	6,797	-13,008
Jun 23	186,319	165,142	21,177	6,797	-14,380
Jul 23	193,212	170,591	22,621	6,797	-15,824
Aug 23	200,361	176,221	24,141	6,797	-17,344
Sep 23	207,775	182,036	25,739	6,797	-18,942
Oct 23	215,462	188,043	27,419	6,797	-20,622
Nov 23	223,434	194,249	29,186	6,797	-22,389

Notes: 1. Average urban household overall monthly expenditure with the JDSS in place; 2. Average urban household overall monthly expenditure without the JDSS in place; 3. AUHOME (with) minus AUHOME (without); 4. Amount of the cash transfer under the JDSS for the average urban household; 5. Extra costs minus cash transfer.

Source: Author's calculations based on data in Tables A1 and A2

Table A4: Gain or loss of urban population from the JDSS (Decile 1)

AUHOME (with)	AUHOME (without)	Extra costs	Cash transfer	Gain or loss
31,774	29,380	2,394	7,393	4,999
33,204	30,350	2,854	7,393	4,539
33,868	31,352	2,517	7,393	4,877
35,358	32,386	2,972	7,393	4,421
36,631	33,455	3,176	7,393	4,217
37,950	34,559	3,391	7,393	4,002
39,354	35,699	3,655	7,393	3,738
40,810	36,877	3,933	7,393	3,460
42,320	38,094	4,226	7,393	3,167
43,886	39,351	4,535	7,393	2,859
45,510	40,650	4,860	7,393	2,534
47,194	41,991	5,202	7,393	2,191
48,940	43,377	5,563	7,393	1,831
50,751	44,809	5,942	7,393	1,451
52,628	46,287	6,341	7,393	1,052
54,576	47,815	6,761	7,393	632
56,595	49,393	7,202	7,393	191
58,689	51,023	7,666	7,393	-273

Note: See notes and source under Table A3.

Table A5: Gain or loss of urban population from the JDSS (Decile 2)

AUHOME (with)	AUHOME (without)	Extra costs	Cash transfer	Gain or loss
50,817	46,989	3,828	9,440	5,612
53,104	48,539	4,565	9,440	4,876
54,166	50,141	4,025	9,440	5,415
56,549	51,796	4,753	9,440	4,687
58,585	53,505	5,080	9,440	4,360
60,694	55,271	5,423	9,440	4,017
62,940	57,095	5,845	9,440	3,595
65,269	58,979	6,290	9,440	3,150
67,684	60,925	6,758	9,440	2,682
70,188	62,936	7,252	9,440	2,188
72,785	65,013	7,772	9,440	1,668
75,478	67,158	8,320	9,440	1,120
78,271	69,374	8,896	9,440	544
81,167	71,664	9,503	9,440	-63
84,170	74,029	10,141	9,440	-701
87,284	76,472	10,813	9,440	-1,372
90,514	78,995	11,519	9,440	-2,078
93,863	81,602	12,261	9,440	-2,821

Note: See notes and source under Table A3.

Table A6: Gain or loss of urban population from the JDSS (Decile 3)

AUHOME (with)	AUHOME (without)	Extra costs	Cash transfer	Gain or loss
63,835	59,026	4,809	9,934	5,125
66,707	60,974	5,734	9,934	4,200
68,042	62,986	5,056	9,934	4,878
71,035	65,064	5,971	9,934	3,963
73,593	67,211	6,381	9,934	3,552
76,242	69,429	6,813	9,934	3,121
79,063	71,721	7,342	9,934	2,591
81,988	74,087	7,901	9,934	2,033
85,022	76,532	8,490	9,934	1,444
88,168	79,058	9,110	9,934	824
91,430	81,667	9,763	9,934	171
94,813	84,362	10,451	9,934	-517
98,321	87,146	11,175	9,934	-1,242
101,959	90,021	11,937	9,934	-2,004
105,731	92,992	12,739	9,934	-2,805
109,643	96,061	13,582	9,934	-3,649
113,700	99,231	14,469	9,934	-4,535
117,907	102,506	15,401	9,934	-5,468

Note: See notes and source under Table A3.

Table A7: Gain or loss of urban population from the JDSS (Decile 4)

AUHOME (with)	AUHOME (without)	Extra costs	Cash transfer	Gain or loss
76,370	70,616	5,753	7,068	1,315
79,806	72,947	6,860	7,068	208
81,402	75,354	6,049	7,068	1,020
84,984	77,841	7,144	7,068	-75
88,044	80,409	7,634	7,068	-566
91,213	83,063	8,150	7,068	-1,082
94,588	85,804	8,784	7,068	-1,716
98,088	88,635	9,452	7,068	-2,384
101,717	91,560	10,157	7,068	-3,089
105,481	94,582	10,899	7,068	-3,831
109,383	97,703	11,680	7,068	-4,612
113,431	100,927	12,503	7,068	-5,435
117,627	104,258	13,370	7,068	-6,302
121,980	107,698	14,281	7,068	-7,213
126,493	111,252	15,241	7,068	-8,172
131,173	114,924	16,249	7,068	-9,181
136,027	118,716	17,310	7,068	-10,242
141,060	122,634	18,426	7,068	-11,358

Note: See notes and source under Table A3.

Table A8: Gain or loss of urban population from the JDSS (Decile 5)

AUHOME (with)	AUHOME (without)	Extra costs	Cash transfer	Gain or loss
89,714	82,955	6,759	6,943	184
93,751	85,693	8,058	6,943	-1,115
95,626	88,521	7,105	6,943	-162
99,834	91,442	8,392	6,943	-1,449
103,428	94,459	8,968	6,943	-2,025
107,151	97,577	9,575	6,943	-2,631
111,116	100,797	10,319	6,943	-3,376
115,227	104,123	11,104	6,943	-4,161
119,490	107,559	11,931	6,943	-4,988
123,912	111,108	12,803	6,943	-5,860
128,496	114,775	13,721	6,943	-6,778
133,251	118,563	14,688	6,943	-7,745
138,181	122,475	15,706	6,943	-8,763
143,294	126,517	16,777	6,943	-9,834
148,595	130,692	17,904	6,943	-10,961
154,094	135,005	19,089	6,943	-12,146
159,795	139,460	20,335	6,943	-13,392
165,707	144,062	21,645	6,943	-14,702

Note: See notes and source under Table A3.

Table A9: Gain or loss of urban population from the JDSS (Decile 6)

AUHOME (with)	AUHOME (without)	Extra costs	Cash transfer	Gain or loss
104,680	96,793	7,886	7,047	-839
109,390	99,988	9,403	7,047	-2,355
111,578	103,287	8,291	7,047	-1,243
116,487	106,696	9,792	7,047	-2,744
120,681	110,217	10,464	7,047	-3,417
125,025	113,854	11,172	7,047	-4,124
129,651	117,611	12,040	7,047	-4,993
134,448	121,492	12,956	7,047	-5,909
139,423	125,501	13,922	7,047	-6,874
144,582	129,643	14,939	7,047	-7,892
149,931	133,921	16,010	7,047	-8,963
155,479	138,340	17,138	7,047	-10,091
161,231	142,906	18,326	7,047	-11,278
167,197	147,622	19,575	7,047	-12,528
173,383	152,493	20,890	7,047	-13,843
179,798	157,525	22,273	7,047	-15,226
186,451	162,724	23,727	7,047	-16,680
193,350	168,094	25,256	7,047	-18,209

Note: See notes and source under Table A3.

Table A10: Gain or loss of urban population from the JDSS (Decile 7)

AUHOME (with)	AUHOME (without)	Extra costs	Cash transfer	Gain or loss
123,034	113,765	9,269	7,006	-2,263
128,570	117,519	11,051	7,006	-4,046
131,141	121,397	9,744	7,006	-2,739
136,912	125,403	11,509	7,006	-4,503
141,841	129,541	12,299	7,006	-5,293
146,947	133,816	13,130	7,006	-6,125
152,384	138,232	14,152	7,006	-7,146
158,022	142,794	15,228	7,006	-8,223
163,869	147,506	16,363	7,006	-9,357
169,932	152,374	17,558	7,006	-10,553
176,219	157,402	18,817	7,006	-11,812
182,740	162,596	20,143	7,006	-13,138
189,501	167,962	21,539	7,006	-14,533
196,512	173,505	23,008	7,006	-16,002
203,783	179,230	24,553	7,006	-17,547
211,323	185,145	26,178	7,006	-19,173
219,142	191,255	27,888	7,006	-20,882
227,251	197,566	29,684	7,006	-22,679

Note: See notes and source under Table A3.

Table A11: Gain or loss of urban population from the JDSS (Decile 8)

AUHOME (with)	AUHOME (without)	Extra costs	Cash transfer	Gain or loss
147,511	136,398	11,113	8,755	-2,358
154,149	140,899	13,250	8,755	-4,495
157,232	145,549	11,683	8,755	-2,928
164,150	150,352	13,798	8,755	-5,043
170,060	155,314	14,746	8,755	-5,991
176,182	160,439	15,743	8,755	-6,988
182,701	165,734	16,967	8,755	-8,212
189,461	171,203	18,258	8,755	-9,503
196,471	176,853	19,618	8,755	-10,863
203,740	182,689	21,051	8,755	-12,297
211,278	188,717	22,561	8,755	-13,806
219,096	194,945	24,151	8,755	-15,396
227,202	201,378	25,824	8,755	-17,069
235,609	208,024	27,585	8,755	-18,830
244,326	214,888	29,438	8,755	-20,683
253,366	221,980	31,387	8,755	-22,632
262,741	229,305	33,436	8,755	-24,681
272,462	236,872	35,590	8,755	-26,835

Note: See notes and source under Table A3.

Table A12: Gain or loss of urban population from the JDSS (Decile 9)

AUHOME (with)	AUHOME (without)	Extra costs	Cash transfer	Gain or loss
190,288	175,953	14,336	8,933	-5,403
198,851	181,759	17,092	8,933	-8,159
202,828	187,757	15,071	8,933	-6,138
211,753	193,953	17,800	8,933	-8,867
219,376	200,353	19,022	8,933	-10,089
227,273	206,965	20,308	8,933	-11,375
235,682	213,795	21,887	8,933	-12,954
244,403	220,850	23,552	8,933	-14,619
253,445	228,138	25,307	8,933	-16,374
262,823	235,667	27,156	8,933	-18,223
272,547	243,444	29,104	8,933	-20,171
282,632	251,477	31,154	8,933	-22,221
293,089	259,776	33,313	8,933	-24,380
303,933	268,349	35,584	8,933	-26,651
315,179	277,204	37,974	8,933	-29,042
326,840	286,352	40,488	8,933	-31,555
338,933	295,802	43,132	8,933	-34,199
351,474	305,563	45,911	8,933	-36,978

Note: See notes and source under Table A3.

Table A13: Gain or loss of urban population from the JDSS (Decile 10)

AUHOME (with)	AUHOME (without)	Extra costs	Cash transfer	Gain or loss
331,775	306,780	24,995	0	-24,995
346,705	316,904	29,801	0	-29,801
353,639	327,362	26,277	0	-26,277
369,199	338,165	31,034	0	-31,034
382,490	349,324	33,166	0	-33,166
396,260	360,852	35,408	0	-35,408
410,921	372,760	38,161	0	-38,161
426,126	385,061	41,064	0	-41,064
441,892	397,768	44,124	0	-44,124
458,242	410,894	47,348	0	-47,348
475,197	424,454	50,743	0	-50,743
492,779	438,461	54,319	0	-54,319
511,012	452,930	58,082	0	-58,082
529,920	467,877	62,043	0	-62,043
549,527	483,317	66,210	0	-66,210
569,859	499,266	70,593	0	-70,593
590,944	515,742	75,202	0	-75,202
612,809	532,762	80,047	0	-80,047

Note: See notes and source under Table A3.

Table A14: Gain or loss of urban population from the JDSS (all deciles)

All (average)	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10
-2,316	4,999	5,612	5,125	1,315	184	-839	-2,263	-2,358	-5,403	-24,995
-4,068	4,539	4,876	4,200	208	-1,115	-2,355	-4,046	-4,495	-8,159	-29,801
-2,784	4,877	5,415	4,878	1,020	-162	-1,243	-2,739	-2,928	-6,138	-26,277
-4,518	4,421	4,687	3,963	-75	-1,449	-2,744	-4,503	-5,043	-8,867	-31,034
-5,295	4,217	4,360	3,552	-566	-2,025	-3,417	-5,293	-5,991	-10,089	-33,166
-6,113	4,002	4,017	3,121	-1,082	-2,631	-4,124	-6,125	-6,988	-11,375	-35,408
-7,117	3,738	3,595	2,591	-1,716	-3,376	-4,993	-7,146	-8,212	-12,954	-38,161
-8,175	3,460	3,150	2,033	-2,384	-4,161	-5,909	-8,223	-9,503	-14,619	-41,064
-9,291	3,167	2,682	1,444	-3,089	-4,988	-6,874	-9,357	-10,863	-16,374	-44,124
-10,466	2,859	2,188	824	-3,831	-5,860	-7,892	-10,553	-12,297	-18,223	-47,348
-11,704	2,534	1,668	171	-4,612	-6,778	-8,963	-11,812	-13,806	-20,171	-50,743
-13,008	2,191	1,120	-517	-5,435	-7,745	-10,091	-13,138	-15,396	-22,221	-54,319
-14,380	1,831	544	-1,242	-6,302	-8,763	-11,278	-14,533	-17,069	-24,380	-58,082
-15,824	1,451	-63	-2,004	-7,213	-9,834	-12,528	-16,002	-18,830	-26,651	-62,043
-17,344	1,052	-701	-2,805	-8,172	-10,961	-13,843	-17,547	-20,683	-29,042	-66,210
-18,942	632	-1,372	-3,649	-9,181	-12,146	-15,226	-19,173	-22,632	-31,555	-70,593
-20,622	191	-2,078	-4,535	-10,242	-13,392	-16,680	-20,882	-24,681	-34,199	-75,202
-22,389	-273	-2,821	-5,468	-11,358	-14,702	-18,209	-22,679	-26,835	-36,978	-80,047

Note: These figures are gathered from the last column in Tables A3 to A13.

Table A15: Monthly inflation rates in Iran with the introduction of the JDSS and their impact on monthly living expenditures by the different expenditure deciles of the rural population

	Inflation rate (with)*	All	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10
May 22**		**61,942**	**12,659**	**23,588**	**31,377**	**38,461**	**45,865**	**53,897**	**64,039**	**77,744**	**99,072**	**172,822**
Jun 22	15.8	71,729	14,659	**27,315**	**36,335**	**44,538**	**53,112**	**62,413**	**74,157**	**90,028**	**114,725**	**200,128**
Jul 22	4.8	75,172	15,363	**28,626**	**38,079**	**46,676**	**55,661**	**65,409**	**77,717**	**94,349**	**120,232**	**209,734**
Aug 22	1.7	76,450	15,624	**29,113**	**38,726**	**47,469**	**56,607**	**66,520**	**79,038**	**95,953**	**122,276**	**213,299**
Sep 22	5.1	80,349	16,421	**30,597**	**40,701**	**49,890**	**59,494**	**69,913**	**83,069**	**100,846**	**128,512**	**224,178**
Oct 22	3.9	83,482	17,061	**31,791**	**42,288**	**51,836**	**61,815**	**72,640**	**86,309**	**104,779**	**133,524**	**232,921**
Nov 22	3.9	86,738	17,727	**33,031**	**43,938**	**53,857**	**64,225**	**75,473**	**89,675**	**108,866**	**138,732**	**242,005**
Dec 22	4.1	90,294	18,453	**34,385**	**45,739**	**56,066**	**66,859**	**78,567**	**93,351**	**113,329**	**144,420**	**251,927**
Jan 23	4	93,906	19,191	**35,760**	**47,569**	**58,308**	**69,533**	**81,710**	**97,085**	**117,862**	**150,196**	**262,004**
Feb 23	4	97,662	19,959	**37,191**	**49,471**	**60,640**	**72,314**	**84,978**	**100,969**	**122,577**	**156,204**	**272,484**
Mar 23	4	101,569	20,757	**38,678**	**51,450**	**63,066**	**75,207**	**88,377**	**105,007**	**127,480**	**162,452**	**283,383**
Apr 23	4	105,632	21,588	**40,225**	**53,508**	**65,589**	**78,215**	**91,912**	**109,208**	**132,579**	**168,951**	**294,719**
May 23	4	109,857	22,451	**41,834**	**55,648**	**68,212**	**81,344**	**95,589**	**113,576**	**137,882**	**175,709**	**306,507**
Jun 23	4	114,251	23,349	**43,508**	**57,874**	**70,941**	**84,597**	**99,412**	**118,119**	**143,398**	**182,737**	**318,768**
Jul 23	4	118,821	24,283	**45,248**	**60,189**	**73,778**	**87,981**	**103,389**	**122,844**	**149,134**	**190,046**	**331,518**
Aug 23	4	123,574	25,255	**47,058**	**62,597**	**76,730**	**91,500**	**107,524**	**127,758**	**155,099**	**197,648**	**344,779**
Sep 23	4	128,517	26,265	**48,940**	**65,101**	**79,799**	**95,161**	**111,825**	**132,868**	**161,303**	**205,554**	**358,570**
Oct 23	4	133,658	27,315	**50,898**	**67,705**	**82,991**	**98,967**	**116,298**	**138,183**	**167,755**	**213,776**	**372,913**
Nov 23	4	139,004	28,408	**52,934**	**70,413**	**86,310**	**102,926**	**120,950**	**143,710**	**174,465**	**222,327**	**387,830**
	Total	1,892,607	386,789	720,720	958,708	1,175,157	1,401,382	1,646,796	1,956,680	2,375,429	3,027,095	5,280,489

Note: *See Table 4 and its explanations in the main text to understand the figures related to the inflation; **see Table 5 and its explanations in the main text to understand the figures about the changes in the monthly expenditures presented in this table.

Source: Author's calculations based on the "Iranian Household Income and Expenditure Survey" data gathered from the Statistical Center of Iran (s.a.-b)

Table A16: Monthly inflation rates in Iran without the introduction of the JDSS and their impact on monthly living expenditures by the different expenditure deciles of the rural population

	Inflation rate (without)*	All	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10
May 22**		**61,942**	**12,659**	**23,588**	**31,377**	**38,461**	**45,865**	**53,897**	**64,039**	**77,744**	**99,072**	**172,822**
Jun 22	3.1	63,862	13,051	24,319	32,350	39,653	47,287	55,568	66,024	80,154	102,143	178,179
Jul 22	3.3	65,970	13,482	25,122	33,417	40,962	48,847	57,402	68,203	82,799	105,514	184,059
Aug 22	3.3	68,147	13,927	25,951	34,520	42,314	50,459	59,296	70,454	85,532	108,996	190,133
Sep 22	3.3	70,395	14,387	26,807	35,659	43,710	52,124	61,253	72,779	88,354	112,593	196,408
Oct 22	3.3	72,719	14,861	27,692	36,836	45,152	53,845	63,274	75,180	91,270	116,308	202,889
Nov 22	3.3	75,118	15,352	28,606	38,051	46,642	55,621	65,362	77,661	94,282	120,147	209,585
Dec 22	3.3	77,597	15,858	29,550	39,307	48,182	57,457	67,519	80,224	97,393	124,111	216,501
Jan 23	3.3	80,158	16,382	30,525	40,604	49,772	59,353	69,747	82,872	100,607	128,207	223,645
Feb 23	3.3	82,803	16,922	31,532	41,944	51,414	61,312	72,049	85,606	103,927	132,438	231,026
Mar 23	3.3	85,536	17,481	32,573	43,328	53,111	63,335	74,426	88,431	107,357	136,808	238,650
Apr 23	3.3	88,358	18,058	33,648	44,758	54,863	65,425	76,882	91,350	110,899	141,323	246,525
May 23	3.3	91,274	18,654	34,758	46,235	56,674	67,584	79,419	94,364	114,559	145,987	254,660
Jun 23	3.3	94,286	19,269	35,905	47,761	58,544	69,814	82,040	97,478	118,339	150,804	263,064
Jul 23	3.3	97,398	19,905	37,090	49,337	60,476	72,118	84,748	100,695	122,245	155,781	271,745
Aug 23	3.3	100,612	20,562	38,314	50,965	62,472	74,498	87,544	104,018	126,279	160,922	280,713
Sep 23	3.3	103,932	21,240	39,578	52,647	64,533	76,956	90,433	107,450	130,446	166,232	289,976
Oct 23	3.3	107,362	21,941	40,884	54,385	66,663	79,496	93,418	110,996	134,751	171,718	299,546
Nov 23	3.3	110,905	22,665	42,233	56,179	68,863	82,119	96,500	114,659	139,197	177,384	309,431
	Total	983,879	201,074	374,669	498,388	610,910	728,514	856,093	1,017,187	1,234,876	1,573,647	2,745,083

Note: *See Table 4 and its explanations in the main text to understand the figures related to the inflation; **see Table 5 and its explanations in the main text to understand the figures about the changes in the monthly expenditures presented in this table.

Source: Author's calculations based on the "Iranian Household Income and Expenditure Survey" data gathered from the Statistical Center of Iran (s.a.-b)

Table A17: Gain or loss of rural population from the JDSS (average household)

	ARHOME (with)[1]	ARHOME (without)[2]	Extra costs[3]	Cash transfer[4]	Gain or loss[5]
Jun 22	71,729	63,862	7,867	7,256	-611
Jul 22	75,172	65,970	9,202	7,256	-1,946
Aug 22	76,450	68,147	8,303	7,256	-1,047
Sep 22	80,349	70,395	9,953	7,256	-2,697
Oct 22	83,482	72,719	10,764	7,256	-3,508
Nov 22	86,738	75,118	11,620	7,256	-4,364
Dec 22	90,294	77,597	12,697	7,256	-5,441
Jan 23	93,906	80,158	13,748	7,256	-6,492
Feb 23	97,662	82,803	14,859	7,256	-7,603
Mar 23	101,569	85,536	16,033	7,256	-8,777
Apr 23	105,632	88,358	17,273	7,256	-10,018
May 23	109,857	91,274	18,583	7,256	-11,327
Jun 23	114,251	94,286	19,965	7,256	-12,709
Jul 23	118,821	97,398	21,424	7,256	-14,168
Aug 23	123,574	100,612	22,962	7,256	-15,707
Sep 23	128,517	103,932	24,585	7,256	-17,329
Oct 23	133,658	107,362	26,296	7,256	-19,040
Nov 23	139,004	110,905	28,099	7,256	-20,844

Notes: 1. Average rural household overall monthly expenditure with the JDSS in place; 2. Average rural household overall monthly expenditure without the JDSS in place; 3. ARHOME (with) minus ARHOME (without); 4. Amount of the cash transfer under the JDSS for the average rural household; 5. Extra costs minus cash transfer.

Source: Author’s calculations based on data in Tables A15 and A16.

Table A18: Gain or loss of rural population from the JDSS (Decile 1)

ARHOME (with)	ARHOME (without)	Extra costs	Cash transfer	Gain or loss
14,659	13,051	1,608	5,727	4,119
15,363	13,482	1,881	5,727	3,846
15,624	13,927	1,697	5,727	4,030
16,421	14,387	2,034	5,727	3,693
17,061	14,861	2,200	5,727	3,527
17,727	15,352	2,375	5,727	3,352
18,453	15,858	2,595	5,727	3,132
19,191	16,382	2,810	5,727	2,917
19,959	16,922	3,037	5,727	2,690
20,757	17,481	3,277	5,727	2,450
21,588	18,058	3,530	5,727	2,197
22,451	18,654	3,798	5,727	1,929
23,349	19,269	4,080	5,727	1,646
24,283	19,905	4,378	5,727	1,348
25,255	20,562	4,693	5,727	1,034
26,265	21,240	5,024	5,727	702
27,315	21,941	5,374	5,727	353
28,408	22,665	5,743	5,727	-16

Note: See notes and source under Table A17.

Table A19: Gain or loss of rural population from the JDSS (Decile 2)

ARHOME (with)	ARHOME (without)	Extra costs	Cash transfer	Gain or loss
27,315	24,319	2,996	8,669	5,673
28,626	25,122	3,504	8,669	5,165
29,113	25,951	3,162	8,669	5,507
30,597	26,807	3,790	8,669	4,879
31,791	27,692	4,099	8,669	4,570
33,031	28,606	4,425	8,669	4,244
34,385	29,550	4,835	8,669	3,834
35,760	30,525	5,235	8,669	3,433
37,191	31,532	5,659	8,669	3,010
38,678	32,573	6,106	8,669	2,563
40,225	33,648	6,578	8,669	2,091
41,834	34,758	7,076	8,669	1,592
43,508	35,905	7,603	8,669	1,066
45,248	37,090	8,158	8,669	511
47,058	38,314	8,744	8,669	-75
48,940	39,578	9,362	8,669	-693
50,898	40,884	10,014	8,669	-1,345
52,934	42,233	10,700	8,669	-2,032

Note: See notes and source under Table A17.

Table A20: Gain or loss of rural population from the JDSS (Decile 3)

ARHOME (with)	ARHOME (without)	Extra costs	Cash transfer	Gain or loss
36,335	32,350	3,985	9,995	6,011
38,079	33,417	4,661	9,995	5,334
38,726	34,520	4,206	9,995	5,789
40,701	35,659	5,042	9,995	4,954
42,288	36,836	5,452	9,995	4,543
43,938	38,051	5,886	9,995	4,109
45,739	39,307	6,432	9,995	3,564
47,569	40,604	6,964	9,995	3,031
49,471	41,944	7,527	9,995	2,468
51,450	43,328	8,122	9,995	1,874
53,508	44,758	8,750	9,995	1,245
55,648	46,235	9,413	9,995	582
57,874	47,761	10,113	9,995	-118
60,189	49,337	10,852	9,995	-857
62,597	50,965	11,632	9,995	-1,636
65,101	52,647	12,454	9,995	-2,458
67,705	54,385	13,320	9,995	-3,325
70,413	56,179	14,234	9,995	-4,239

Note: See notes and source under Table A17.

Table A21: Gain or loss of rural population from the JDSS (Decile 4)

ARHOME (with)	ARHOME (without)	Extra costs	Cash transfer	Gain or loss
44,538	39,653	4,885	6,985	2,100
46,676	40,962	5,714	6,985	1,271
47,469	42,314	5,156	6,985	1,829
49,890	43,710	6,180	6,985	805
51,836	45,152	6,683	6,985	301
53,857	46,642	7,215	6,985	-230
56,066	48,182	7,884	6,985	-899
58,308	49,772	8,537	6,985	-1,552
60,640	51,414	9,226	6,985	-2,242
63,066	53,111	9,955	6,985	-2,971
65,589	54,863	10,725	6,985	-3,741
68,212	56,674	11,538	6,985	-4,554
70,941	58,544	12,397	6,985	-5,412
73,778	60,476	13,302	6,985	-6,318
76,730	62,472	14,258	6,985	-7,273
79,799	64,533	15,265	6,985	-8,281
82,991	66,663	16,328	6,985	-9,343
86,310	68,863	17,447	6,985	-10,463

Note: See notes and source under Table A17.

Table A22: Gain or loss of rural population from the JDSS (Decile 5)

ARHOME (with)	ARHOME (without)	Extra costs	Cash transfer	Gain or loss
53,112	47,287	5,825	7,631	1,806
55,661	48,847	6,814	7,631	817
56,607	50,459	6,148	7,631	1,483
59,494	52,124	7,370	7,631	261
61,815	53,845	7,970	7,631	-339
64,225	55,621	8,604	7,631	-973
66,859	57,457	9,402	7,631	-1,771
69,533	59,353	10,180	7,631	-2,549
72,314	61,312	11,003	7,631	-3,371
75,207	63,335	11,872	7,631	-4,241
78,215	65,425	12,790	7,631	-5,159
81,344	67,584	13,760	7,631	-6,129
84,597	69,814	14,783	7,631	-7,152
87,981	72,118	15,863	7,631	-8,232
91,500	74,498	17,003	7,631	-9,371
95,161	76,956	18,204	7,631	-10,573
98,967	79,496	19,471	7,631	-11,840
102,926	82,119	20,806	7,631	-13,175

Note: See notes and source under Table A17.

Table A23: Gain or loss of rural population from the JDSS (Decile 6)

ARHOME (with)	ARHOME (without)	Extra costs	Cash transfer	Gain or loss
62,413	55,568	6,845	7,860	1,016
65,409	57,402	8,007	7,860	-147
66,520	59,296	7,225	7,860	636
69,913	61,253	8,660	7,860	-800
72,640	63,274	9,366	7,860	-1,505
75,473	65,362	10,111	7,860	-2,250
78,567	67,519	11,048	7,860	-3,188
81,710	69,747	11,963	7,860	-4,102
84,978	72,049	12,929	7,860	-5,069
88,377	74,426	13,951	7,860	-6,090
91,912	76,882	15,030	7,860	-7,169
95,589	79,419	16,169	7,860	-8,309
99,412	82,040	17,372	7,860	-9,512
103,389	84,748	18,641	7,860	-10,781
107,524	87,544	19,980	7,860	-12,120
111,825	90,433	21,392	7,860	-13,532
116,298	93,418	22,881	7,860	-15,020
120,950	96,500	24,450	7,860	-16,589

Note: See notes and source under Table A17.

Table A24: Gain or loss of rural population from the JDSS (Decile 7)

ARHOME (with)	ARHOME (without)	Extra costs	Cash transfer	Gain or loss
74,157	66,024	8,133	8,111	-22
77,717	68,203	9,514	8,111	-1,403
79,038	70,454	8,584	8,111	-474
83,069	72,779	10,290	8,111	-2,179
86,309	75,180	11,128	8,111	-3,017
89,675	77,661	12,013	8,111	-3,903
93,351	80,224	13,127	8,111	-5,016
97,085	82,872	14,214	8,111	-6,103
100,969	85,606	15,362	8,111	-7,252
105,007	88,431	16,576	8,111	-8,465
109,208	91,350	17,858	8,111	-9,747
113,576	94,364	19,212	8,111	-11,101
118,119	97,478	20,641	8,111	-12,530
122,844	100,695	22,149	8,111	-14,038
127,758	104,018	23,740	8,111	-15,629
132,868	107,450	25,417	8,111	-17,307
138,183	110,996	27,186	8,111	-19,076
143,710	114,659	29,051	8,111	-20,940

Note: See notes and source under Table A17.

Table A25: Gain or loss of rural population from the JDSS (Decile 8)

ARHOME (with)	ARHOME (without)	Extra costs	Cash transfer	Gain or loss
90,028	80,154	9,873	10,002	128
94,349	82,799	11,550	10,002	-1,548
95,953	85,532	10,421	10,002	-419
100,846	88,354	12,492	10,002	-2,490
104,779	91,270	13,510	10,002	-3,508
108,866	94,282	14,584	10,002	-4,582
113,329	97,393	15,936	10,002	-5,935
117,862	100,607	17,256	10,002	-7,254
122,577	103,927	18,650	10,002	-8,648
127,480	107,357	20,124	10,002	-10,122
132,579	110,899	21,680	10,002	-11,678
137,882	114,559	23,323	10,002	-13,322
143,398	118,339	25,058	10,002	-15,056
149,134	122,245	26,889	10,002	-16,887
155,099	126,279	28,820	10,002	-18,818
161,303	130,446	30,857	10,002	-20,855
167,755	134,751	33,004	10,002	-23,003
174,465	139,197	35,268	10,002	-25,266

Note: See notes and source under Table A17.

Table A26: Gain or loss of rural population from the JDSS (Decile 9)

ARHOME (with)	ARHOME (without)	Extra costs	Cash transfer	Gain or loss
114,725	102,143	12,582	10,231	-2,351
120,232	105,514	14,718	10,231	-4,487
122,276	108,996	13,280	10,231	-3,049
128,512	112,593	15,919	10,231	-5,689
133,524	116,308	17,216	10,231	-6,985
138,732	120,147	18,585	10,231	-8,354
144,420	124,111	20,308	10,231	-10,077
150,196	128,207	21,989	10,231	-11,758
156,204	132,438	23,766	10,231	-13,536
162,452	136,808	25,644	10,231	-15,413
168,951	141,323	27,628	10,231	-17,397
175,709	145,987	29,722	10,231	-19,491
182,737	150,804	31,933	10,231	-21,702
190,046	155,781	34,266	10,231	-24,035
197,648	160,922	36,727	10,231	-26,496
205,554	166,232	39,322	10,231	-29,091
213,776	171,718	42,059	10,231	-31,828
222,327	177,384	44,943	10,231	-34,712

Note: See notes and source under Table A17.

Table A27: Gain or loss of rural population from the JDSS (Decile 10)

ARHOME (with)	ARHOME (without)	Extra costs	Cash transfer	Gain or loss
200,128	178,179	21,948	0	-21,948
209,734	184,059	25,675	0	-25,675
213,299	190,133	23,166	0	-23,166
224,178	196,408	27,770	0	-27,770
232,921	202,889	30,031	0	-30,031
242,005	209,585	32,420	0	-32,420
251,927	216,501	35,426	0	-35,426
262,004	223,645	38,358	0	-38,358
272,484	231,026	41,458	0	-41,458
283,383	238,650	44,734	0	-44,734
294,719	246,525	48,194	0	-48,194
306,507	254,660	51,847	0	-51,847
318,768	263,064	55,704	0	-55,704
331,518	271,745	59,773	0	-59,773
344,779	280,713	64,066	0	-64,066
358,570	289,976	68,594	0	-68,594
372,913	299,546	73,368	0	-73,368
387,830	309,431	78,399	0	-78,399

Note: See notes and source under Table A17.

Table A28: Gain or loss of rural population from the JDSS (all deciles)

All (average)	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10
-611	4,119	5,673	6,011	2,100	1,806	1,016	-22	128	-2,351	-21,948
-1,946	3,846	5,165	5,334	1,271	817	-147	-1,403	-1,548	-4,487	-25,675
-1,047	4,030	5,507	5,789	1,829	1,483	636	-474	-,419	-3,049	-23,166
-2,697	3,693	4,879	4,954	805	261	-800	-2,179	-2,490	-5,689	-27,770
-3,508	3,527	4,570	4,543	301	-339	-1,505	-3,017	-3,508	-6,985	-30,031
-4,364	3,352	4,244	4,109	-230	-973	-2,250	-3,903	-4,582	-8,354	-32,420
-5,441	3,132	3,834	3,564	-899	-1,771	-3,188	-5,016	-5,935	-10,077	-35,426
-6,492	2,917	3,433	3,031	-1,552	-2,549	-4,102	-6,103	-7,254	-11,758	-38,358
-7,603	2,690	3,010	2,468	-2,242	-3,371	-5,069	-7,252	-8,648	-13,536	-41,458
-8,777	2,450	2,563	1,874	-2,971	-4,241	-6,090	-8,465	-10,122	-15,413	-44,734
-10,018	2,197	2,091	1,245	-3,741	-5,159	-7,169	-9,747	-11,678	-17,397	-48,194
-11,327	1,929	1,592	582	-4,554	-6,129	-8,309	-11,101	-13,322	-19,491	-51,847
-12,709	1,646	1,066	-118	-5,412	-7,152	-9,512	-12,530	-15,056	-21,702	-55,704
-14,168	1,348	511	-857	-6,318	-8,232	-10,781	-14,038	-16,887	-24,035	-59,773
-15,707	1,034	-75	-1,636	-7,273	-9,371	-12,120	-15,629	-18,818	-26,496	-64,066
-17,329	702	-693	-2,458	-8,281	-10,573	-13,532	-17,307	-20,855	-29,091	-68,594
-19,040	353	-1,345	-3,325	-9,343	-11,840	-15,020	-19,076	-23,003	-31,828	-73,368
-20,844	-16	-2,032	-4,239	-10,463	-13,175	-16,589	-20,940	-25,266	-34,712	-78,399

Note: These figures are gathered from the last column in Tables A17 to A26.

Table A29: List of experts*

Name of expert	Field of expertise	Other information
Abdi. A.	Social research	Journalist
Afghah, M.	Economics	Academician
Argoon, A.	Economics	Tehran Chamber of Commerce Deputy
Ashtarian, K.	Public policy	Academician
Bagheri, Y.	Social welfare	Academician
Davarpanah, A.	Anthropology	Academician
Fazeli, M.	Sociology	Academician
Hashemkhani, M.	Economics	Academician
Heydari, A.	Administration	Social Security Organization Deputy
Jalaeipoor, M.	Sociology	Academician
Karimi, Z.	Economics	Academician
Khadem, M.	Economics	Academician
Leylaz, S.	Economics	Academician
Madanizadeh, A.	Economics	Academician
Meidari, A.	Economics	Former Welfare Deputy, Ministry of Cooperatives, Labour and Social and Welfare; Academician
Mesbahi Moghaddam, G.	Economics	Former Member of Parliament, Academician
Mohseni Bandpay, M.	Politics	Member of Parliament, Former Head of Social Welfare Organization
Momeni, F.	Economics	Academician
Mostafavi Sani, A.	Economics	Academician
Nazeran, P.	Economics	Academician
Nili, M.	Economics	Academician
Raghfar, H.	Economics	Academician
Sarzaeem, A.	Economics	Former Economic Deputy, Ministry of Cooperatives, Labour and Social and Welfare, Academician
Shakeri, A.	Economics	Academician
Sobhani, H.	Economics	Former Member of Parliament, Academician
Soori, D.	Economics	Academician
Multiple experts	Economics	Collective and open letter of 61 economists

* See the methodology section for information about the selection of experts.