

Food Subsidy in Cash or Kind?

The Wrong Debate

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The need for the public distribution system varies widely across states and districts. In some districts, the poor draw more than 80% of their grain from the PDS, but in other districts this share is less than 10%. A wide diversity of relationships with the PDS exist, suggesting a need for alternative modes of provisioning. A variable geometry of food provisioning might emerge, with cash working better for the needs of some districts and grain supply continuing to work better in other districts. Only a well-designed empirical test of the alternative modes will help ascertain the preferred shape of the PDS for a particular state or district.

Should food subsidies, currently availed in the form of subsidised cereals, be given out in the form of cash instead? Arguments have been advanced on both sides of this debate, which remains largely unresolved so far. Some analysts and official agencies have come out in favour of the cash alternative.¹ Other scholars have argued that the food security of the country's poorer citizens is better ensured by retaining the existing mode of in-kind subsidies given out through the public distribution system (PDS) (Khera 2011a, 2011b; Sinha 2015; Media for Rights 2011; Ghosh and Qadeer 2006).

This debate, having been waged for nearly a decade, is usually conducted in either/or terms: either the PDS should be entirely replaced by cash transfers, or it should remain entirely in-kind. Individuals and families, however, do not live by these either/or terms. Hardly any family gets its food entirely from the PDS or entirely for cash. Most make use of both systems. Poor households have to supplement the PDS rations with grains bought for cash. On an average, across the country, less than 30% of BPL (below poverty line) households' total grain consumption derives from the PDS, while more than 70% is sourced from the market. The relative shares of the PDS and the market in the grain supply of the poor vary considerably from district to district and from state to state. People in some districts get more than 80% of their grain supply from the PDS, whereas people in other districts source less than 10% of their grain from the PDS. The requirements for a cash alternative in terms of behavioural and administrative changes in the former type of district is very different from the requirements in the latter type.

We draw upon data from the second round of the India Human Development

Survey (IHDS), conducted during 2011–12, to track the variation in PDS dependence across states and districts. A total of 42,152 households across the nation were interviewed through this survey, which covered both rural and urban districts. The survey has modules on households' consumption expenditure and income as well as on ration cards and other programme benefits. Information is available about each household's consumption of rice and wheat and about the quantities that were obtained, respectively, from the PDS and the market. The survey also has information about the category of ration card that each household possesses: BPL, Antyodaya, Annapurna, APL (above poverty line), or none.² We combine the first three of these categories into a single group—"the poor"—referred to, hereafter, as BPL.³

Rice and wheat are critical components of India's food security plan. These foodgrains constitute the largest part of the calorific intake of most Indian households. Although other grains—particularly millets and sorghum—are also important to the Indian diet, in this analysis, we confine our attention to rice and wheat and refer to them as foodgrains in the rest of this article. The average Indian consumes 11 kg per month of rice and wheat, with the poorest individuals consuming slightly more (11.8 kg per month), and the richest, somewhat smaller quantities (10.6 kg per month). A family of five individuals thus requires almost 60 kg of grains every month. The proportion of these foodgrains supplied via the PDS varies from state to state.

Table 1 shows the percentage share of foodgrains sourced from the PDS by different types of households. The share of PDS grains in total supplies increased considerably between 2004 and 2011,

Table 1: Share of PDS Grain in Total Household Consumption

Household Type	Percentage Share of PDS	
	2004–05	2011–12
Poorest	12.5	26.8
2nd quintile	13.3	26.8
Middle quintile	14.1	26.8
4th quintile	11.8	25.8
Richest	6.3	18.2

Source: Government of India (2016: 120–A93).

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with poorer as well as richer households increasing their reliance upon the PDS. Still, even the poorest households that are entitled to larger PDS rations get around 75% of their grain supply from outside the PDS.⁴

The relative shares of cash-bought and PDS-supplied foodgrains vary considerably across states, districts, and population groups. Table 2 presents data regarding the extent to which households rely upon the PDS in each state. The last column shows the percentage of households that depend upon the PDS for 70% or more of their grain supplies (the figures in this column are the sum of those in the previous three columns). These are the households that we consider highly PDS dependent.⁵

On an average, across India, 12.2% of households get more than 70% of their grain supply from the PDS. But, there are six states—Jammu and Kashmir, Himachal Pradesh, Chhattisgarh, Maharashtra, Goa, and Tamil Nadu—in which more than 20% of households are highly PDS dependent. On the other hand, less than 10% of households are highly PDS dependent in 10 other states.

Differences across states are larger when only BPL households are considered. The PDS is meant to provide fair-priced foodgrains to APL households and subsidised grains to BPL households. In many instances, the size of this subsidy is large enough to raise a family above the poverty line, contributing as much or more to the household budget as wages generated by working on MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act) projects, the other large-scale anti-poverty government programme (Dreze and Khera 2013). Table 3 presents the percentage of all households and BPL households, respectively, in each state who are heavily PDS dependent (drawing more than 70% of their consumption of grains from PDS).

People relate to the PDS differently in different states. In some states, the PDS pipeline is more essential to more people. In other states, fewer people are PDS dependent, relying more upon the market for foodgrains. The percentage share of heavily PDS-dependent BPL households is greatest (50.5%) in

Maharashtra. In seven other states—Jammu and Kashmir, Himachal Pradesh, Jharkhand, Rajasthan, Chhattisgarh, Kerala and Tamil Nadu—this share is greater than 30%. At the other end of the spectrum, the share of BPL households who are heavily dependent on PDS is only 3.3% in West Bengal and 7.6% in Andhra Pradesh. Therefore, implementing a cash alternative will have different implications in different states. Replacing the PDS pipeline for 6% of grain consumption is a qualitatively different matter compared to replacing half or more of the grain supply line.

States are, however, large entities, and there are considerable variations even within states. Districts, composed of 1–2 million people, have traditionally been the unit of provisioning for food supplies. PDS dependence levels vary considerably across districts of the same state.⁶ For each state, we looked to see which districts are especially dependent upon PDS.⁷ We employed two criteria for this examination: (i) share of PDS in total district consumption of foodgrains (overall dependence); and (ii) share of BPL families getting more than 70% of

Table 3: Share of BPL Households among Highly PDS-dependent Households

	Households Dependent on PDS for 70% or More of Grain Supply	
	All Households	BPL Households
Jammu and Kashmir	26.5	39.8
Himachal Pradesh	33.2	45.3
Uttarakhand	11.1	21.9
Punjab	3.9	12.2
Haryana	7.2	24.8
Delhi	5.8	19.3
Uttar Pradesh	6.9	23.8
Bihar	6.6	11.5
Jharkhand	12.7	30.3
Rajasthan	9.9	33.0
Chhattisgarh	23.3	39.3
Madhya Pradesh	10.7	23.6
North East (excluding Assam)*	9.8	20.6
Assam	13.4	28.3
West Bengal	1.5	3.3
Odisha	15.3	24.1
Gujarat	5.9	18.3
Maharashtra	22.1	50.5
Goa	6.6	12.0
Andhra Pradesh	6.7	7.6
Karnataka	14.1	21.8
Kerala	15.8	37.7
Tamil Nadu	32.1	39.7
India	12.2	22.3

*The number of observations in the IHDS is too small to provide data for individual states in the North East and in the interest of better statistical validity, this grouping has been considered together.

Table 2: Percentage of Households by Share of PDS Grain in Total Grain Consumption

State	Share of PDS Grain in Total Household Grain Consumption										
	0–0.1	>0.1–0.2	>0.2–0.3	>0.3–0.4	>0.4–0.5	>0.5–0.6	>0.6–0.7	>0.7–0.8	>0.8–0.9	>0.9	>0.7
Jammu and Kashmir	32.4	1.3	4.5	8.2	10.5	8.5	7.9	7.0	6.1	13.4	26.5
Himachal Pradesh	9.5	2.5	5.8	6.5	13.3	10.7	18.6	11.0	9.2	13.0	33.2
Uttarakhand	33.2	3.3	8.3	11.2	16.0	5.0	12.0	4.5	1.4	5.2	11.1
Punjab	77.2	0.4	1.6	4.0	7.0	3.0	3.1	1.4	1.1	1.4	3.9
Haryana	81.5	0.2	0.5	1.6	2.9	2.8	3.3	1.8	2.6	2.8	7.2
Delhi	78.1	1.3	1.2	2.8	5.5	1.8	3.5	1.1	1.9	2.8	5.8
Uttar Pradesh	72.0	1.6	2.9	4.2	5.3	3.8	3.4	2.1	2.3	2.5	6.9
Bihar	50.7	3.9	9.2	11.0	10.8	3.8	4.0	2.0	1.6	3.0	6.6
Jharkhand	63.1	1.5	4.2	4.9	5.9	2.1	5.5	2.5	0.8	9.4	12.7
Rajasthan	69.5	3.7	3.7	3.2	4.7	2.5	2.9	1.4	2.7	5.8	9.9
Chhattisgarh	38.6	1.4	2.5	3.7	9.7	9.1	11.8	7.1	5.0	11.2	23.3
Madhya Pradesh	59.6	3.0	5.6	6.4	7.0	4.1	3.4	2.6	2.4	5.7	10.7
North East (excluding Assam)*	34.7	2.5	6.8	14.6	18.2	5.0	8.5	3.5	2.4	3.9	9.8
Assam	51.7	6.5	6.4	5.0	6.7	5.1	5.2	2.8	3.3	7.3	13.4
West Bengal	61.5	13.1	10.6	5.7	3.9	2.1	1.7	0.6	0.4	0.5	1.5
Odisha	34.0	4.5	6.5	11.4	15.3	5.0	8.0	6.1	2.9	6.3	15.3
Gujarat	72.0	3.3	5.2	4.3	4.5	2.1	2.6	1.5	1.5	2.9	5.9
Maharashtra	57.0	2.1	3.5	3.1	5.7	2.6	4.0	2.5	2.7	16.9	22.1
Goa	14.9	0.5	15.3	21.7	19.7	11.2	9.9	4.8	1.5	0.2	6.6
Andhra Pradesh	13.2	3.0	14.6	23.0	24.2	8.5	6.8	2.4	1.6	2.7	6.7
Karnataka	33.0	3.2	7.2	9.8	13.6	9.6	9.5	3.3	3.8	7.0	14.1
Kerala	19.1	8.0	18.4	15.4	12.5	5.5	5.4	3.3	3.7	8.8	15.8
Tamil Nadu	10.8	2.4	2.4	3.5	18.7	15.4	14.7	6.7	6.2	19.2	32.1
India	49.6	3.7	6.3	7.5	9.8	5.3	5.7	2.9	2.6	6.7	12.2

*The number of observations in the IHDS is too small to provide data for individual states in the North East and in the interest of better statistical validity, this grouping has been considered together.

their consumption of foodgrains from PDS (BPL dependence).

Together, these two criteria helped distinguish between districts with diverse experiences of, and different degrees of reliance upon, the PDS.⁸ Table 4 classifies districts along these axes. States are diverse, with districts that have variously high and low levels of PDS dependence and BPL dependence.

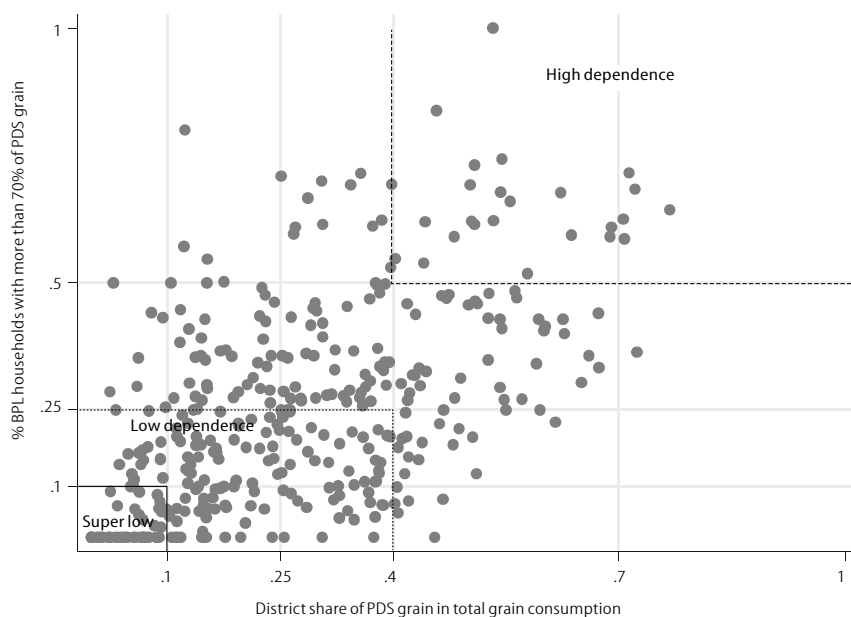
Table 4: Varying Degrees of PDS Dependence across Districts

Share of PDS in Total Grain Consumption (All Households)	Number of Districts by Percentage of Highly PDS-dependent BPL Households			
	0–10	>10–≤25	>25–≤50	>50
	Type B			
70% or higher	0	0	1	5
40%–70%	6	17	38	19
	Type A			
25%–40%	18	32	45	12
10%–25%	36	43	37	4
10% or lower	43	17	7	0
	(Super-A)			

The table emphasises the split between two types of districts: Type A, depicted at the bottom left; and Type B, depicted towards the top right. In Type A districts, less than 40% of all grain consumed comes from the PDS, and less than 25% of BPL households are heavily dependent upon PDS supplies. These are the low PDS-dependent districts. Within this category, there is a subcategory of super-low PDS-dependent districts: the 43 districts depicted in the bottom left cell, in which less than 10% of grain supply is obtained through PDS and less than 10% of BPL households are heavily PDS dependent (Super-A type). At the other end of the spectrum are districts of Type B. The PDS pipeline plays a comparatively larger role for meeting people's food security needs in these districts. There are also other districts that are high on one dimension and low on the other dimension of PDS dependence. We regard these as intermediate-dependence districts.

Figure 1 graphically depicts this range of PDS dependence. Type A districts are clustered towards the origin in this graph. Notably, they include both rural and urban districts.⁹ Type B districts are scattered towards the top right. In between are the intermediate-dependence districts. Notably, there is no single state in which all districts fall into Type A or B.

Figure 1: Degrees of PDS Grain in Total Consumption



Super-A districts and those of Type B are polar opposites in terms of their relationship with the PDS. People in Super-A districts already obtain 90% or more of their grains from outside the PDS. They should be more ready and willing to switch to cash compared to people in other, more heavily PDS dependent districts.¹⁰ The more copious market pipeline that exists in these districts could be expanded with less difficulty compared to what is possible and likely in Type B districts.

Dealing with Diversity

The potential benefits of the cash alternative have been stressed by a number of commentaries on the subject (Gulati and Saini 2015; Kotwal et al 2011; Muralidharan et al 2011). These include (i) the freedom to buy the grains one prefers—including grains like bajra and maize that are not supplied by the PDS—and to buy them at a place and time of one's selection (rather than having to buy a pre-specified bundle of grains of a certain quality at a pre-specified shop, which is sometimes open for only a limited number of hours); (ii) the enhanced bargaining power that the ability to exit any particular shop provides to the consumer; (iii) the reduced need for the authorities to closely safeguard against leakages in the PDS pipeline of subsidised commodities;¹¹ and (iv) the considerable

savings that should accrue to the taxpayer from having a system that is less administratively heavy.¹²

Formidable reasons that require one to be wary about the cash alternative have also been underlined in other commentaries on the subject. These include (i) the distant location of banks and post offices from many villages; (ii) shortages of public transport facilities in some areas; (iii) single-member households, elderly and disabled persons, who worry that cash means going to two places (bank and ration shop) instead of one; (iv) the lack of familiarity, in situations of low literacy, with banking procedures; (v) the inability of the existing bank network to cope with a suddenly enlarged demand for services, as witnessed in the chaotic scenes seen at the time of demonetisation; (vi) reports of corrupt practices in handling MGNREGA payments; and (vii) the fear that, without the anchor of the PDS, the balance of power will shift towards traders and away from consumers (Khera 2011a, 2014; Sinha 2015).¹³

These are all real and important reasons that need to be borne in mind while field-testing alternative modes of provision.

We are ourselves agnostic about whether cash or grains represents the better solution. We recognise, in fact, that we may be thinking of the wrong

policy question. Where the needs are as diverse across districts as they are in the case of the PDS—ranging from 10% to 90% dependence—the question of whether a uniform response is the best one needs to be considered. Using public resources wisely requires looking carefully at alternative modes of provision, and admitting that a variable geometry of poverty responses might be required to deal with the heterogeneous situations that exist.

If a cash alternative is to be tried out, then it will be better to undertake this implementation in a small group of six–eight Super-A districts. If workable plans get developed that assure food security in this subgroup of Super-A districts, especially of poorer residents, then, and only then, should the cash alternative be extended to any other district.

Based on learnings from the past, some design principles are important while implementing the cash alternative in the initial group of Super-A districts. These design principles are similar in some respects to those articulated by other commentators (Government of India 2015, 2016; Muralidharan et al 2011). But, in other respects, our design principles are different:

(i) States should have the right to opt into (or stay out of) the testing of alternatives. Families within these states should also have the right to opt between food and cash. They should also have the right to reverse their choices. The choice for a family must not be made by someone else. They, and they alone, should exercise these choices.

(ii) Retain and strengthen the existing network of PDS outlets—making them partners, and not adversaries, of the new system.

(iii) Food subsidies to BPL households should be given out, in the first instance, in the form of vouchers, distributed through the existing network of PDS outlets (and not as bank deposits, which adds another layer of complication).

(iv) Food vouchers should be inflation-indexed cash entitlements, equal in value to x kg of wheat or rice at the prevailing market price.

(v) A far-reaching public information campaign must be run in the selected

districts during the three to six months prior to the launch of the test in any district. People should know clearly the ramifications of both options.

Variable Geometry of Provisioning

No fully fleshed-out set of procedures for a cash alternative is knowable at the start. Setting up the required structures and implementing appropriate procedures in the first set of six to eight pilot districts will take at least two to three years. Families who opt for cash should be given food vouchers equal in value to the subsidy they would have availed. The value of the voucher should not be greater or smaller than the in-kind subsidy. That is necessary for a fair testing of the alternative. Individuals must have the choice to opt in or out of the cash alternative. Those who select to remain in the existing PDS will have the right to change their option later.

Food vouchers should be distributed through the existing PDS outlets, providing the seller with an equal commission (as if they were giving out rice or wheat), thereby giving them an equal stake in either alternative. Focusing on the existing network of PDS outlets—making them responsible for food vouchers, in addition to PDS grains—will help strengthen a key point of local administration, one that can be utilised for monitoring, for grievance reporting, and for social pressure. The choice of depositing vouchers with banks must rest with individuals and families. Where people have confidence in banks and when they have gained familiarity with banking procedures, the amount of the cash subsidy that flows through banks will automatically increase. Making it an imposition reduces choice, lowering welfare.

A prior test of the cash alternative, rolled out in three cities in 2015, violated several of these design principles and had to be hastily rolled back. Individuals were not given the right to choose whether they wanted to opt into or out of the cash alternative. Rather, the alternative was thrust upon them without any mass education campaign and without clear and well-known processes. The worst failures were observed on the part of the banks. In many cases, there were errors

in the amounts deposited in individuals' accounts: too much money was deposited in some accounts and too little in others. Problems were encountered in withdrawing cash (Sethi 2017). Reorienting one mammoth bureaucracy (associated with the PDS) is hard enough, but educating, motivating and policing two mammoth bureaucracies (the PDS and banks) and arranging for coordination between them hugely increases the workload and magnifies the risks.

An important design principle relates to information campaigns: informing common people about the details of the programme and its implementation, and enabling them to think clearly about the rights they have and about the choices they need to exercise. Poorly informed citizens are likely to panic. A widespread public information campaign preceding the introduction of the cash alternative helps bring clarity and purpose to the undertaking, enabling people to make considered decisions. No such information campaigns preceded the 2015 experiments. For all of these reasons, it would be helpful if these projects were to be taken up as high-priority projects of the state and central governments.

A final suggestion relates to the selection of districts for these tests. We recommend that the tests be undertaken first in rural districts, where the lines of administration are more clearly drawn than in large cities (in which, typically, diverse authorities functioning in parallel hamstring the cohesiveness and effectiveness of the administrative effort). Working in rural areas should also help develop solutions to a more diverse set of problems.

Conclusions: Uncertain Benefits

The potential benefits of cash are considerable, but the risks involved in replacing the PDS with cash are also large. Systems need to be developed and put in place that protect food security, especially of vulnerable households.

These and other systems are not yet in place at the present, so we are not sanguine that moving from the PDS to cash will be smooth or even that it will result in producing net benefits. However, since the cash alternative holds the promise of

greater freedom of choice to the consumer while lowering the burden to the exchequer, it needs to be tried out with seriousness and care. The achievement of this promise is tricky in practice, which is why a sequenced plan of implementation, starting with a few pilot districts, is recommended. If the introduction of the cash alternative—initially in six to eight Super-A districts with the lowest overall PDS dependence and the lowest percentages of heavily PDS-dependent BPL households—results in producing a situation where more and more individuals are opting to get food vouchers (cash) instead of grain entitlements, then a case can be made for extending the alternative to other districts.

Change will occur incrementally. Even in the first set of districts, people will not switch to cash all at once. It can reasonably be expected that the PDS will continue for a long time even in districts where the cash alternative is implemented (which provides another reason why the network of PDS shops needs to be protected). There might well be some districts where the cash alternative is preferred by the vast majority of eligible households, and other districts where the majority prefer to obtain PDS grains. Trying to find a single solution is the wrong idea in a situation where levels of PDS dependence vary a great deal across households and districts. Those who want it should have the cash alternative; there should be no imposition of cash upon the rest.

NOTES

- 1 See, for instance, the statement in favour of cash transfers by the food minister (*Indian Express* 2016). The report of a high-level committee appointed by the central government, the Shantha Kumar Committee, also opined in favour of “gradual introduction of cash transfers in PDS ... [a] much more cost effective way to help the poor, without much distortion in the production basket, and in line with best international practices ... it can save the exchequer more than ₹30,000 crore annually, and still giving better deal to consumers” (Government of India 2015).
- 2 While the BPL card is for identified poor families, Antyodaya is for the poorest of the poor BPL families, and Annapurna is for senior citizens who, though eligible, have remained uncovered under the National Old Age Pension. Overall, 41.5% households have BPL cards, while 44.5% have APL cards, and the remaining 14% do not have any type of card.
- 3 We recognise, along with others, that, because of errors both of omission and commission, BPL cards constitute an ineffective way of

identifying the poor. This concern is an important one, but it needs to be addressed separately. Whether food subsidies are provided in cash or in kind, the problem of identifying poor people reliably has to rely upon a separate effort.

- 4 Even in rural India, grains bought for cash supplement PDS supplies and home-grown stock. The average rural household gets roughly 30% of its grain consumption from the family farm, 20% from PDS, and the rest from other sources.
- 5 Alternative analyses could be run considering different thresholds of dependence. We ran some such analyses ourselves, for instance, considering the lower threshold of 50%, but the ranking of states and districts in terms of levels of PDS dependence did not change.
- 6 Take, for instance, Maharashtra (the state with the greatest PDS dependence among BPL households). In three of its districts, Mumbai, Nanded, and Pune, the share of PDS dependent BPL households is less than 30%, while in other districts of the same state, such as Bid, Dhule, Hingoli, and Ratnagiri, more than 70% of BPL households are heavily PDS dependent. In other states, too, inter-district variations are considerable.
- 7 A note of caution: the IHDS was administered in only 380 of India's more than 700 districts. Households, not districts, were picked to be nationally representative. In order to undertake a comprehensive district-by-district analysis, recourse will have to be taken to household-level census data. The analysis presented here is illustrative of a method for classification and prioritisation.
- 8 Overall dependence and BPL dependence are not defined to be closely related. The correlation coefficient between them is low, 0.55.
- 9 The 43 Type A districts include one district of Haryana (Panchkula); five districts of Punjab; eight districts of UP (including Ghaziabad, Agra, and Lucknow); four districts of Delhi; two of Bihar; four of Rajasthan (including Ajmer); one district of Jharkhand (Bokaro); five of West Bengal (including Malda, Murshidabad, and Kolkata); four districts in Nagaland; four in MP (including Gwalior and Indore); and five districts in Gujarat (including Vadodara and Surat).
- 10 Surveys by Muralidharan et al (2011) and Khera (2011a), point to diametrically opposite conclusions, with the former showing overwhelming public support for the cash alternative (in Bihar) and the latter, conducted in nine states, painting a mixed picture. Another study on Direct Benefits Transfer (DBT) in three union territories (Chandigarh, Dadra and Nagar Haveli, and Puducherry) of the country shows that beneficiaries' preference for DBT over in-kind PDS benefits could be growing over time (Muralidharan et al 2017). Other surveys show, however, that households prefer food over cash in states where the PDS system works well such as Andhra Pradesh, Chhattisgarh, and Tamil Nadu (Khera 2014). The survey evidence, contradictory as it is, is not persuasive. In each case people are asked, in the survey, to weigh a system they know against a mythical alternative, and responses are heavily biased by how survey questions are framed.
- 11 These leakages can be considerable though the figure is improving. One careful estimate (based on IHDS data) places the extent of leakage at 32% of the total (Dreze and Khera 2013).
- 12 Citing a study by the erstwhile Planning Commission, Gulati and Saini (2015: 2), find that “to deliver ₹1 of an income transfer to a BPL family, government had to spend ₹3.65.”
- 13 There are also some imaginary apprehensions, which need to be set aside, including the view held by some elites that poor people, especially men, will be prone to drinking away the cash

they get, starving their families. No systematic evidence supports this caricatured image. An unexamined prejudice equates poor men with drunkards.

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