Cash vs In-Kind Transfers: Indian Data Meets Theory

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ABSTRACT

This paper uses qualitative and quantitative data from a survey of over 1,200 rural households in nine Indian states, along with secondary data, to shed light on the arguments for and against cash and in-kind (in this case, food) transfers. Respondents were asked to think about, argue, and 'choose' between the two options. Overall, two-thirds of the respondents expressed a preference for food. Some of the arguments respondents make in favour of their choices echo existing theory (e.g., paternalism, fungibility) while others are not necessarily discussed in existing theoretical work (e.g., self-control, transition costs). The quantitative analysis also highlights the context specificity of what is the appropriate form of government intervention. In that sense, this paper contributes to the growing evidence that the answer to such policy choices ultimately depends on the context.

Key words: Cash transfers, in-kind transfers, India, South Asia

JEL codes: I380, B410, H530

1 INTRODUCTION

In their comprehensive survey on the theoretical arguments for in-kind transfers, Currie and Gahvari (2008) note a 'disconnect between the theoretical and empirical work on in-kind transfers. Many theories seem to be unmotivated by deep knowledge of the programmes and the empirical work seems to largely accept the paternalism theory and move on to other questions.' The authors highlight that the existing literature on theoretical explanations for in-kind transfers discusses the role of paternalism, interdependent preferences, enhanced self-targeting, intra-household redistribution, pecuniary benefits, asymmetric information among agents leading to market failures, and the role of political economy factors (see also Thurow 1974).

The 'disconnect' alluded to has been conspicuous in the debate on replacing in-kind food transfers with cash in India. This paper, based on an empirical investigation of the question of cash transfers vs in-kind transfers of subsidised food in India, is an attempt to bridge that disconnect.[1] The context for this enquiry is a policy debate on replacing in-kind transfers of subsidised food through the Public Distribution System (PDS) with cash transfers. The main arguments in favour of cash transfers are corruption in the functioning of the PDS and its high operational costs.[2] Proponents of cash transfers are optimistic, with much of the optimism stemming from the largely positive evaluations of cash transfer programmes such as Bolsa Família (Brazil) and Oportunidades (Mexico). This paper contributes to the cash vs in-kind debate in three ways.

One, it examines primary qualitative and quantitative data from a household survey. Empirical evidence corroborates several theoretical factors mentioned above—paternalism, interdependent preferences, pecuniary benefits, and intra-household distribution issues. This empirical enquiry also brings to light certain arguments not adequately discussed in the earlier theoretical literature. To individuals living on the margins of subsistence, sometimes in areas with poorly developed markets or in patriarchal societies that suffer from other forms of social inequality, in-kind transfers provide a protection that cash transfers may not ensure.

Two, wherever possible, the empirical validity of arguments emerging from the primary data is examined using available secondary data. For instance, since maintaining the

[1] In India, many government transfers are in-kind transfers (school meals, subsidised food, medical care) though a range of cash transfers also exist (e.g., old age pensions, widow pensions, maternity entitlements).

[2] See Svedberg (2012); Kotwal, Murugkar, & Ramaswami (2011); Chaudhuri & Somanathan (2011); and Subramanian, Mukhopadhyay, & Kapur (2008).

purchasing power of the cash transfer is expressed as a concern, what evidence is there that indexation might be operationally difficult?

Three, the paper also draws attention to the context specificity of the debate by outlining the socioeconomic conditions under which the Latin American 'successes' were achieved and whether such conditions apply in the Indian scenario.

In a nutshell, even though context specificity does appear in earlier literature, the theoretical work does not seem to adequately take context into account.[3] Broadly speaking, the four contextual factors that are important in this study are the presence and maturity of local markets, the preparedness of the financial system, the socioeconomic status of recipients, and cultural norms. Further, while the discussions have focussed on the cost-effectiveness of cash transfers, not enough attention has been paid to the fact that when one switches from in-kind transfers to cash transfers, many of the government's transaction costs are passed on to poor beneficiaries. The size of these transaction costs and the extent to which (if at all) beneficiaries are compensated for these would determine the distributional consequences of the shift to cash transfers. Besides transaction costs, a switch from one to the other also imposes 'transition costs', an issue that is rarely discussed in the literature.

Section 2 outlines the methodology followed in the paper. Section 3 lays out the analytical arguments in favour of in-kind food transfers based on the empirical work. It also briefly discusses the advantages of cash transfers (Section 3.4). Section 4 reports and discusses the result of probit regressions using the quantitative data to test the strength of factors listed in Section 3 on the preference expressed by respondents. Section 5 ends with some concluding remarks.

2 METHODOLOGY

This paper is based on a household survey covering more than 1,200 rural households across nine Indian states. The survey was conducted in May–June 2011 among predominantly poor households who currently have access to subsidised food transfers from the PDS. The PDS provides subsidised foodgrains (and other essential commodities) through a network of fair price shops (FPS). The PDS has been criticised as an inefficient and expensive mechanism of enhancing food security. Poor targeting, corruption (or 'diversion'), and high operational costs are among the reasons used to justify the move from a universal PDS to

[3] At least some of these issues have been addressed in the literature on appropriate interventions in disaster management or 'response analysis'. See, for instance, Barrett et al (2009); Farrington et al. (2006); Gentilini (2007); and Harvey (2005) cited in Narayanan (2011).

the Targeted PDS (TPDS) in 1997. Based on their economic status, households were classified as Above Poverty Line (APL) or Below Poverty Line (BPL); while BPL households continue to receive subsidised foodgrains through the TPDS, APL households receive subsidies. Many states have recently been putting in their own resources to return to the universal system.[4]

Investigators sought the views of respondents on whether they would prefer an in-kind transfer of subsidised food (as it exists today) or a cash equivalent. Specifically, respondents were asked what they thought of the following proposal: the ration shop is closed, the government opens a bank account for them (if they do not have one already) and each month credits adequate cash for them to buy on the open market the same basket of goods that they currently get from the ration shop. The amount of cash deposited would be indexed to a suitable price index so that its purchasing power does not diminish over time. Investigators were asked to first explain the proposal carefully, engage respondents in a discussion of the proposal so that they have time to think about the pros and cons and record the respondent's stated reservations or preference for either option. The questionnaire included pre-coded options in favour of and against both options. For instance, some of the pre-coded concerns with respect to cash were 'misuse of money', 'local inflation', 'local food storage or hoarding', 'corruption', 'remoteness of market', 'remoteness of bank/post office', 'lack of familiarity with new system', and so on. Similarly, pre-coded advantages of cash included 'fungibility', 'diversification of diet', 'control over food quality', 'protection from fraud', 'convenience', 'saving', and 'other'. Investigators were also instructed to note responses verbatim and in long hand wherever relevant.

Finally, the question would be asked again and the answer summarised in one of five ways: clear preference for food, clear preference for cash, conditional preference for food (e.g., I prefer food if the PDS outlet opens regularly), conditional preference for cash (e.g., I prefer cash if there is a guarantee that it will be deposited regularly), and unclear response (for those respondents who were unable to engage with the discussion or unable to arrive a clear conclusion). The investigators were carefully trained to facilitate the discussion without influencing the responses.

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[4] The states covered were Andhra Pradesh, Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Orissa, Rajasthan, Tamil Nadu, and Uttar Pradesh. In each of the 20 sample districts, six villages (three each in two different blocks) were selected for investigation. Selected villages were a random sample from the list of census villages with a population of 500–1500. In six out of nine sample states, surveyed households were a random sample selected from the BPL list. In the remaining three states (Andhra Pradesh, Himachal Pradesh, and Tamil Nadu), where the PDS is universal or quasi-universal, the voter list was used for sampling. See Khera (2011b) for more details.

2.1 Methodological Caveats

There might be several concerns with respect to what can be read into the responses. One, the question posed to survey respondents presented them with a hypothetical situation, which they were asked to evaluate vis-à-vis an existing system familiar to them. Respondents may not fully comprehend what the hypothetical situations entail. Further, it may not be possible for them to compare an existing system of welfare from which they currently derive (or do not derive) benefits with a hypothetical one. Even if respondents are able to make these comparisons, their responses may be influenced by their perception of what the surveyors want to hear or other such considerations. Nevertheless, we believe these issues do not detract from our results. The reasons follow.

As mentioned above, the pre-coded choices included the option to classify a respondent as being unable to engage with the question posed or being unclear about his response. The proportion of such respondents is less than 10 per cent (Table 1). On whether it is possible to compare an existing system with a hypothetical one, what reassured us was that many respondents drew parallels with other cash transfer programmes they had experienced (including social security pensions, cash for housing, wages from government employment programmes, and so on). Further, the fact that one-fifth of the respondents stated that the proposed (hypothetical) alternative made them nervous to 'choose' it precisely because it is something with which they have no experience ('risk aversion') is itself an interesting finding which perhaps needs to be taken into account. Finally, on whether the respondents were engaging without being influenced by what we were expecting to hear, we were reassured as many stated both the pros and cons of both systems. In a few cases, respondents followed survey teams after the interview was over either to restate or reiterate their position. Some respondents used strong words to convey their preference for food or made emphatic choices. (For instance, while describing the importance of the PDS, phrases such as 'cannot do without', 'otherwise we will die', 'do not talk about this option', and so on were not uncommon).

Over two-thirds of the respondents favoured in-kind food transfers rather than cash (Table 1). The survey findings suggest that choices made by respondents are context-specific—if the PDS functions poorly (e.g., in Bihar), respondents were open to the idea of cash transfers; where the PDS delivers foodgrains regularly and without much embezzlement, most respondents voiced an emphatic preference for food (Table 1). The next section examines their responses in greater detail.

Table 1 Performance of in-kind transfer programme and people's preferences

	PER	Proportion (%) of respondents who:		
		Prefer food ('conditional preference' for food)	Prefer cash ('conditional preference' for cash)	Were undecided, unclear or inconsistent
Andhra Pradesh	99	91.3 (0.8)	5.6 (0)	2.4
Bihar	45	20.8 (18.1)	54.2 (1.4)	5.6
Chhattisgarh	95	90.3 (2.1)	2.1 (1.4)	4.2
Himachal Pradesh	92	81.4 (1.7)	9.3 (0.0	7.6
Jharkhand	71	66.0 (3.5)	22.2 (1.4)	7.0
Orissa	97	88.3 (0.7)	5.8 (0.0)	5.0
Rajasthan	86	59.6 (7.4)	14.7 (8.1)	10.2
Tamil Nadu	92	70.6 (8.4)	10.5 (2.1)	8.4
Uttar Pradesh	77	41.5 (6.7)	34.1 (0)	17.7
All states	**85**	**67.2 (5.6)**	**17.9 (1.6)**	**7.5**

Notes:'PER' refers to the proportion (%) of official grain entitlement that households actually receive. Refer to the text for details.

3 INSIGHTS FROM QUALITATIVE DATA

Tables 2 to 4 report the proportion of households that preferred food or cash along with the reasons they gave in favour of (and against) cash (and food). Section 3.1 presents empirical evidence in support of theoretical arguments already discussed in the literature—paternalism and interdependent preferences, intra-household distribution and pecuniary benefits. Section 3.2 moves on to the contextual factors that bear upon the debate, but are not adequately discussed in the theoretical literature.

Table 2 Proportion of respondents who mentioned various drawbacks or advantages of food transfers (%)

	Overall sample (%)	Among those who preferred food	Among those who preferred cash
Concerns related to PDS			
Corruption	13	2	47
Irregular	11	4	34
PDS is unpredictable	7	3	19
Poor quality of grain	24	12	54
Hassles in getting grain	8	4	20
Advantages of food			
Food security	46	60	3
Protection from misuse of money	25	33	2
Familiarity	29	38	3
PDS is convenient	41	53	4
Feeding guests	2	3	1
Lower transaction costs	13	17	0.5

Notes:'PER' refers to the proportion (%) of official grain entitlement that households actually receive. Refer to the text for details.

Table 3 Proportion of respondents who mentioned various drawbacks or advantages of cash transfers (%)

	Overall sample (%)	Among those who preferred	
		Food	Cash
Concerns related to cash			
Cash will be dissipated	36	46	4
Inflation	19	24	3
Local hoarding or shortage	3	4	0.5
Corruption	8	9	3
Distance to market	30	38	4
Distance to bank	27	35	5
Hassles of collecting money	26	34	2
Unfamiliarity with cash system	22	29	1
Cash may be stolen	1	2	0.5
Transaction costs	17	23	1
Advantages of cash			
Cash is fungible	19	5	62
Diversified diets	14	4	46
Better quality of food	17	4	56
No fraud	7	0.5	31
It is convenient	5	0	18
Allows us to save	4	1	17

Notes:'PER' refers to the proportion (%) of official grain entitlement that households actually receive. Refer to the text for details.

Table 4 Proportion of respondents who mentioned various drawbacks or advantages of cash transfers (%)

	Within village			**Within 5 km of village**	
	Fair Price Shop	Post Office	Bus service	Market	Bank
Himachal Pradesh	46	46	59	40	50
Rajasthan	54	55	53	49	54
Uttar Pradesh	81	44	20	67	76
Chhattisgarh	55	26	63	68	53
Bihar	67	61	40	82	87
Jharkhand	77	15	58	81	69
Orissa	66	42	41	57	63
Andhra Pradesh	93	81	70	54	63
Tamil Nadu	95	84	92	63	80
All India	**74**	**55**	**46**	**56**	**69**

Notes: The table reports unweighted averages from the village questionnaire of the India Human Development Survey, 2005 (IHDS, 2005). 'Bank' includes credit cooperative.

Sources: For 'fair price shop', 'bus stop', 'post office' within the village, Desai et al. (2010), Table 12.3, p. 185. The rest have been calculated using IHDS 2005 village data.
http://www.ncaer.org/downloads/Reports/HumanDevelopmentinIndia.pdf

3.1 Food Over Cash: Existing Theoretical Arguments

3.1.1 Paternalism

Paternalism is 'intimately related to the idea of merit goods and merit wants' and provides a justification for in-kind government intervention in economic theory (Currie & Gahvari 2008). Others interpret paternalism less charitably—as control of others. The empirical results here suggest that this debate has been misinterpreting the case for a 'nudge' (Thaler & Sunstein 2008) as 'paternalism'. As Thaler and Sunstein (2008: 5) point out, nudging tries to 'make it easy for people to go their own way.' They distinguish paternalism from 'libertarian paternalism' as a means of steering 'people's choices in the directions that will improve their lives … as judged by [people] themselves.'

Food security: The 'paternalism' implicit in giving grain was appreciated by respondents as it was a source of (food) security to them, an assurance that they would not sleep hungry.[5] Between one-third and one-half of respondents expressed worries about cash being misused. In this sense, fungibility and paternalism are two sides of the same coin. In theory, fungibility is one of the main advantages of cash (i.e., people can choose how to spend the money). However, the survey findings here suggest that it is also one of the main disadvantages of cash.

Respondent Palamammal (Tamil Nadu) said, 'Grains can be used even the next month. But if cash is in hand it can be spent on random stuff.' In Rajasthan, a Dalit respondent Amar Singh used almost exactly the same words to describe the sense of security that food brings: 'Money is bound to be spent; [unused] grain will be saved.'

Protection from exploitation: Echoing similar sentiments, Anil Kondh (Orissa) said, 'We want food. We cannot eat money.' Ansari Begum (Uttar Pradesh) stated plainly, 'When we get rations, we can fill our stomachs. If we get cash, corrupt officials will cheat us and it will be spent easily.' This respondent's worry highlights the fact that cash can be swindled out of people more easily than food. It may be a concern in some parts of India (e.g., tribal areas), where the moneylenders (sahukars) are known for their exploitative and usurious practices.[6]

Self-control: Another variant of the same (nudge) argument given by respondents was the lack of 'self control'. Respondents were worried that cash would be spent 'unnecessarily'; expenditure on alcohol was the main, but not the only, concern. Bhola Yadav (50 years) said, 'With cash, there will be wasteful expenses.' In Dharmapuri (Tamil Nadu), one respondent said that 'Food is much safer. Money gets spent easily.'[7] In Dindigul (Tamil Nadu), C. Sivakumar told the investigators of a friend who went to buy medicine for his wife and ended up spending money on drinking and dinner. 'It cost him Rs 1600. Even if you give ten times the amount I will prefer the ration shop since the goods cannot be frittered away.' Another male respondent in Rajasthan said clearly that if he had money he would drink and therefore he preferred to get food. This is not to say that the respondents did not appreciate the need for cash for other things (more on that in Section 3.3). For instance, Resingh Chhattria (Orissa) said, 'Other needs of the family can be served by working but nothing is more important than the need of the stomach.'

[5] Banerjee and Duflo (2011) also highlight instances where the poor may not necessarily act in their own interest and where reducing the number of decisions they have to make can improve well-being. Spears (2011) and Shah et al. (2012) document similar results.

[6] See, for instance, Mohanty (1945).

[7] The investigators note: 'Male in the household possibly spends on drinking or some other emergency. This means no assurance for food for remaining days.'

This suggests that the provision of food (in this context) is actually enabling people to realise their exact need, so paternalism would be the wrong way to describe it.

3.1.2 Interdependent Preferences and 'Other Regarding' Responses

Interdependent preferences among 'donors' and 'recipients' that 'give rise to a consumption externality' provide another justification for in-kind transfers in economic theory. Here, the idea is that the non-poor whose taxes support government interventions 'derive utility from seeing the poor consume certain goods'; however, a richer perspective on this is also available (Currie & Gahvari 2008).[8] Tobin (1970) suggests that people 'would like to see that all individuals receive adequate food, medical services, or housing' (see also Deaton 1992). Kelman (1986) argues that 'individuals have rights to certain specific things, not the cash equivalent of these things'. An excellent political economy perspective is summarised by Hausman and McPherson (1997), two philosophers, who warn against the pitfalls of applying narrow economic arguments to issues that are far more complex. The results here corroborate the latter (political and philosophical) perspective on the issue rather than a utilitarian perspective.

Some of the respondents who chose cash over food said at the same time that while that may be a good option for them, they felt the question should be posed in terms of what is good for everyone. Some were concerned about older people (e.g., Saradhammal, Valarmathi said, 'Old people will find cash difficult') and others about poorer people. For instance, Cauvery Ammal said, 'Please do not use our consumption pattern to infer that all people are eating like this and reduce benefits available to them.'

Murugan (another respondent from Tamil Nadu) said, 'All cannot go to the bank. Many are old and illiterate. PDS is comfortable. Grains can be saved for extra month and it is a saviour for the landless.'

P. Mani's response shows the close relationship between interdependent preferences and paternalism. He preferred cash for himself but felt that for others in the village food is better. 'Many of them are drunkards, so they will just drink it …. If [the] quality of food is good, a lot of malnourishment can be prevented.' He praised Kamraj, Anna, and MGR (former chief ministers of the state) for opening ration shops. Twenty years ago, when he was a child, there were times when people would sleep without food. After the coming of ration shops, sleeping hungry is rare, at least in his village.

[8] Similarly, Thurow (1974) invokes the idea of 'societal preferences'. At least one female tribal respondent in Rajasthan explicitly mentioned this: 'It is the duty of the government to provide for the poor.'

3.1.3 Pecuniary Benefits

Pecuniary benefits can accrue in at least two ways. One, in-kind transfers provide protection from inflationary pressures. Two, the inflow of cash through cash transfers can itself contribute to inflation, if supply is inelastic.[9]

In our sample, one-fifth of all respondents were concerned about the erosion of purchasing power due to inflation. This proportion rises to a quarter among households who preferred food (Table 2). Even though investigators explained that the amount of cash would be indexed, respondents argued that the government would not be able to track prices and asked if the government would actually index cash transfers to food inflation.[10] Some respondents also asked about the frequency of indexation. Three illustrative quotes are reproduced here.

Vasantha (Tamil Nadu) felt that 'prices might increase after the government decides the sum of money'. Suhasini (Andhra Pradesh) said, 'Prices will not be stable in the market. It will be very difficult for the government to give us the appropriate amount.' In Sirmaur (Himachal Pradesh), Ratan Lal said 'the government will increase the amount only before elections are due.' In Orissa especially, people were concerned about local inflation (caused by local traders or otherwise).[11]

These arguments contrast with the somewhat shallow understanding and casual treatment of this issue among some proponents of cash transfers in India. For instance, Svedberg (2012) brushes aside this concern in a single sentence: 'The solution is to index the transfers to the real price of basic food items, which is technically simple, but politically sensitive.'[12] While recognising that there might be political issues, our enquiry suggests that

[9] On this, see Cunha, De Giorgi, Jayachandran (2011) for empirical work on price effects of in-kind and cash transfers in Mexico and Sabates-Wheeler and Devereux (2010) for similar effects in Ethiopia. A third potential benefit of in-kind transfers, specifically for the poor, could be that the poorer face higher prices for the same commodities in the same market (see Rao 2000). Using NSS data from 2009–10, I do not find evidence of this. For example, the price paid (for wheat) by the poorest decile is higher than the price paid by the second poorest decile in six out of 20 major states, but in each case, the price difference is less than one rupee. A similar exercise is not easy for rice as there are large variations in the quality and corresponding price of rice.

[10] Under the National Rural Employment Guarantee Act (NREGA) which guarantees 100 days of employment per rural household, the government put a freeze on wages for two years at a time of high food inflation (2009–11). The 'distrust' regarding indexing of cash transfers voiced by respondents is, therefore, a valid concern.

[11] It could be argued that these apprehensions are due to the lack of experience with cash transfers. Indeed, this also emerged from the survey findings and is discussed below (in the section on transition costs and transaction costs).

[12] On price fluctuations, Kapur, Mukhopadhyay, & Subramaniam (2008) simply state 'Replicating this in a DCT would involve indexing a part of it to food prices.'

it is not 'technically simple' to index cash transfers; one needs to consider several factors—including local variation in prices, adequate infrastructure requirements to collect such information, and frequency of indexing the amount.[13]

Data on market prices from the National Sample Survey (2009–10) do show wide inter-district variations. For example, within a district, the price of wheat varied between Rs 8 per kg and Rs 80 per kg, when the median price is Rs 20 per kg. For wheat, where variations in quality are less likely to drive price variations, the average price varies from Rs 11 per kg to Rs 24 per kg. This suggests the inadequacy of state level price indices and that at least district (or even block) level prices might be required.

3.2 Food Over Cash: Context Matters

It is worth reiterating that the survey was carried out only in rural areas where nearly 70 per cent of the Indian population resides and where poverty is concentrated. While Table 4 provides some information on access to the relevant market, transport, and banking facilities in the rural areas of the survey states (from secondary data), basic socioeconomic characteristics from the primary data are reported in Table 5.

[13] Barrett (1996) discusses some of these issues.

Table 5 Socioeconomic characteristics of sample households

	All states	AP	BI	CH	HP	JH	OR	RJ	TN	UP
Female respondents (%)	48	63	37	44	45	42	50	43	63	44
Illiterate respondents (%)	66	58	86	79	33	67	79	70	54	62
Living in mud homes (%)	49	24	50	76	53	73	62	38	13	50
Proportion (%) of SCs/STs	52	39	52	69	50	78	69	55	17	44
Proportion (%) of households with less than one acre of land (in brackets, landless)	61 (36)	62 (29)	99 (73)	69 (43)	70 (7)	70 (22)	56 (25)	76 (59)	56 (36)	81 (26)
Proportion (%) of households with someone in 'regular' employment	3	1	1	0	5	1	1	7	11	2
Standard of Living Index (SLI)a										
Low (SLI<=10)	70	30	96	87	42	96	85	82	18	93
High (SLI>20)	4	10	0	1	8	0	1	0	12	1
NREGA in the preceding 12 months										
% getting no employment (0 days)	37	20	62	31	22	30	46	52	22	50
Average days per household	29	39	12	25	41	28	19	33	55	14

Notes: [a] The 'SLI' has been created by weighting the ownership of assets in this manner: 4 for a pucca home, 2 for a semi-pucca home and 0 for mud home; 4 for a flush toilet and 0 for none; 2 for electricity and 0 for none; 2 for piped water supply and 1 for public sources of water supply; 4 for 5 or more acres of land, 3 for 2-5 acres of land, 2 for up to 2 acres of land and 0 for no land; 4 for ownership of a four-wheel vehicle and 3 for ownership of two-wheel vehicle; 3 each for ownership of a television set or fan; 1 for ownership of a pressure cooker.

The latter clearly brings out the fact that the sample comprises poor and disadvantaged households—two-thirds of the respondents are illiterate, nearly half (49 per cent) lives in mud huts, and a large majority (70 per cent) has a low 'standard of living' index. This section focuses on the contextual factors likely to be relevant in implementing cash transfer programmes in India.

3.2.1 Poverty and Food Security

In-kind transfers of food through the PDS perform a very useful role in terms of assuring households that they do not sleep hungry. On average, sample households got 24 kg per month from the PDS between March and May 2011. This is 85 per cent of their full entitlement. Nearly half (46 per cent) of all households in the sample mentioned food security as an advantage of the PDS; among those households that preferred food to cash, this proportion was 60 per cent. On the other hand, when survey respondents were asked if any member of the household had to skip a meal or sleep hungry in the three months preceding the survey, more than one-fifth (22 per cent) said yes. The inter-state contrasts are striking with less than 10 per cent of respondents reporting hunger in Himachal Pradesh, Orissa, Tamil Nadu, and Uttar Pradesh, but 70 per cent reported hunger in Bihar.[14]

The relief that the grain (and other food items in some states) brought came through very clearly in people's statements. Rani (Dharmapuri, Tamil Nadu) said, 'Money will give us happiness one day, but food will help us sleep peacefully throughout the month. It makes us less insecure.' Some respondents became anxious upon hearing of the hypothetical alternative. Vijayshankar Bhoi, Chhattisgarh said that 10 years ago, when the PDS did not function well, they were forced to sleep hungry. 'Not anymore! We want rice. What will we do with money? Savour it?' Thirty-year old Shambhu Pandit (Bihar) put it quite plainly, 'If we get food, why do we need money?'[15] Note that it was in Bihar that the PDS Survey found serious issues of diversion (i.e., respondents getting less than what they are entitled to).[16]

Being assured of two meals a day it seems is still not something that poor households in many sample areas could take for granted. In Sundergarh (Orissa), Pushpa Algar felt that

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[14] Investigators felt that there were variations in people's willingness to talk about hunger in the household, and the data presented here should be read in that light.

[15] Note that the responses are not necessarily to be taken at face value; for example, respondents do need some cash. Their vehement statements against the cash option do, however, suggest that 'resale' of food is not a common phenomenon.

[16] According to Khera (2011a), 75 per cent of the grain lifted by the Bihar government in 2009–10 did not reach entitled households.

‘rice is better; we have the assurance of getting food without much tension’. Resingh Chhatria (Orissa) said that ‘nothing is more important than the need of the stomach’. Lalit Chhatria, also from Orissa, went further and said in a matter-of-fact way that the PDS must stay; ‘otherwise we will die’.

Arguments related to food security were made more forcefully in three states: Andhra Pradesh, Chhattisgarh and Orissa. Apart from the fact that the PDS functions reasonably well in these states (households reported getting more than 95 per cent of their grain entitlement), other plausible reasons for this pattern are that poverty rates are higher in these areas, some of these areas (especially in Chhattisgarh and Orissa) are more remote where the issue of access to markets and banks is more serious than in others (see below).

3.2.2 Poorly Developed Rural Markets

In many survey areas, the distance to, and nature of, markets were serious issues. On average, households reported that the nearest market (grocery store) was between 2.5 km and 3.6 km away, whereas the average distance to the PDS outlet was 1.4 km. Apart from physical distance, the lack of transport, public or otherwise, exacerbates the access problem.

That this problem is not limited to survey areas is brought out clearly in Table 4 which demonstrates that in the survey states, access to government FPS is easier than to markets; except for Bihar, Chhattisgarh, and Jharkhand, the proportion of villages with a FPS *within the village* is higher than the proportion of villages that are *within 5 km* of a market. Bus services are poor—less than half of the villages have a bus service. In Uttar Pradesh, this figure rises to 80 per cent; the median number of buses per day is zero in four states (Uttar Pradesh, Chhattisgarh, Bihar, and Orissa) and just two in Rajasthan (see Table 4).

In many cases, these problems can just be a question of adequately compensating people for the additional transaction costs that cash transfers would impose on them. Transaction costs in this case include the inconvenience of travelling to markets and cost of travel (transport costs and foregone wages). For instance, Chatru Beharulal (32-year old Dalit, Mahasamund, Chhattisgarh), who lived 15 km from the grocery store and 5 km from the bank said, ‘We go to the ration shop at 8 am and return at 4 pm; if we get money, we’ll spend one day at the bank and another at the market. When will we work?’

However, it is not just a case of compensating individuals for private transaction costs. It is well recognised that markets are far from perfect in many developing countries.[17]

[17] Harriss-White has documented many aspects of the working of rural markets in India. See, e.g., Harriss-White in Harriss et al. ed. (1995).

Three concerns related to the uncertainty that comes with poorly developed rural markets were voiced by respondents. One, respondents were concerned that converting cash transfers into food (grain) would entail greater uncertainty. Here, the most basic issue is whether there is a market at all. for example, Sulochana Kondh (Nuapada, Orissa) said, 'Where will we buy rice? It is not sold anywhere near here, not even at the weekly market.' Himadri (Mahasamund, Chhattisgarh) said, 'Finding rice is difficult.' Echoing this, Aetwaribhai, a 60-year old tribal widow said, 'It is very difficult to get rice in the market. I am too old to go and search for rice.'

Two, respondents were aware of the possibility of hoarding and artificial shortages when markets are poorly developed. Seema Devi (Himachal Pradesh), a Dalit woman, said that she would never prefer cash as she will never be able to trust the local market. Kusaiyan (Tamil Nadu), a tribal, was concerned about fluctuations in market prices because he felt that unlike the salesman at the ration shop who is accountable and can be questioned, this would not be possible in the case of private traders.

Three, people were also concerned about localised inflation resulting from hoarding. As Palaniammal (Tamil Nadu) said, 'Local dealers will raise prices if the PDS closes'. In Jharkhand, Rajender drew upon his experience in his district: so long as wheat was supplied through the PDS, the local market price of wheat was around Rs. 10/kg. When PDS wheat supplies were replaced with rice, the market price of wheat increased to around Rs 14 per kg.

While some might argue that the growth of local markets is inhibited by the PDS and that in its absence, markets may flourish, the arguments given above suggest that one cannot predict, a priori, how the market will react if the PDS is withdrawn.

3.2.3 Access To Banks

People articulated a range of concerns related with access to banks and post offices. Table 4 shows that access to post offices and banks is also limited: just over half of all Indian villages have a post office. However, post offices have a poor record owing to corruption in the disbursement of wages for employment programmes. Thus, access to bank branches is important if one of the main advantages of cash transfers (i.e., protection from corruption) is to be realised. However, access to banks is more limited: only 69 per cent of Indian villages have a branch within 5 km (see Table 4).

The low density of banks and post offices in rural areas means that here too they would incur some transaction costs in getting to the bank. As in the case of markets, this means transport costs and foregone wages. Thus, Bhakh Munda (Jharkhand), a tribal, said, 'Getting to the bank will cost Rs. 10 and getting to the market will cost Rs. 20; who will pay this? Two days will be spent; that means I will lose my wages too.'

Further, respondents commented on the thinness of the current banking network and poor staffing, which would have implications for the volume of transactions that can be handled. A shift to cash transfers would lead to a massive increase in workload at rural banks. Upendra (Chhattisgarh), for instance, said that his local bank has only one counter. 'How will they serve so many BPL families?'

Survey respondents appreciated the flexibility that they enjoyed in terms of drawing their rations—anyone from the family (or even neighbourhood) could collect their monthly rations on their behalf, if required. Muniandi (Tamil Nadu), a young Dalit, said, 'It is convenient to arrange for getting grain from PDS by either taking a break from work or getting someone else to stand in line for you. All this may not be possible when we have to travel to the bank by bus.'[18]

Finally, respondents were nervous and lacked the confidence to deal with banks and banking procedures. More than one-third of respondents, who preferred food, mentioned the lack of familiarity with banks as a concern (Table 3). Shanti (Uttar Pradesh), a Dalit woman said, 'If I go to [the] bank they will take my thumb print on whatever they want, then I will be in trouble as I am illiterate.' Indrani (Tamil Nadu) put it succinctly, 'The bank is far, takes one whole day [to get there], and I do not know the system, whereas ration shops are closer and it is cheaper. People at the bank treat us differently and we do not know how to read. Whereas I know the dealer and he treats me well; I can demand if he gives me less.'[19]

3.2.4 Experience with Other Cash Transfers

In some cases, the nervousness expressed by respondents with respect to cash transfers could be attributed to their lack of familiarity with a new system (discussed below). However, this was not uniformly true. In many cases, the nervousness about cash transfers was directly the result of their experience with other forms of cash transfers.[20]

[18] This flexibility is also appreciated by older respondents (see below).

[19] When transfers are made in kind (e.g. ration shops), accountability may be easier to fix and enforce. In the case of cash transfers, one respondent felt that it was not clear who would be accountable.

[20] The Indian government runs many cash transfers schemes too, such as widow pensions, old age pensions, subsidised housing scheme and so on. Wages earned through the NREGA, which provides employment, are also paid through banks and post offices.

Drawing on their experience with these cash transfer programmes, respondents raised two issues: timeliness of payments and corruption. For instance, Kokila (Rajasthan), a 55-year old Dalit widow who gets her pension every 5–6 months felt that 'if cash is given, it will be the same.' Similarly, Munki Devi (Bihar) had no faith in the claim of timely payments. 'When rice is not given on time, how will money be given on time?' she said.[21] Similarly, 'When NREGA payments are not given on time, how will this money be given on time?' said Nanram from Chhattisgarh.

Cash transfers are often advocated because there is less scope for corruption. As money is deposited in an individual's account, it is less likely to be taken away by others. Empirical work on cash transfers in India presents a slightly mixed picture (see, for example, Dutta, Howes, and Murgai 2010). In our sample, nearly 10 per cent of the respondents who preferred food, mentioned corruption as a concern with respect to cash (see Table 3). Senthamarai Kannan (Tamil Nadu) said, 'If cash is given by the government, I will definitely not get it properly. For instance, already the government has implemented money for marriages, old age pension, etc. In each of these cases, lot of money is given away as bribes to middlemen. I will not get my all money.' Some respondents, in fact, were convinced that cash was more prone to embezzlement than food. Ansari Begum (UP) said, 'When we get food, we are able to fill our stomachs. If they give us cash, officials will eat it up and it will be spent easily.'

3.2.5 Intra-Household Inequality and Gender

Provision of food rather than cash assumes significance in rural India because of the social and cultural context, i.e., a patriarchal society (which ascribes a lower status to women) and low levels of education. Aitwari (Jharkhand) said, 'Sometimes her young children [may] sleep hungry as her husband drinks. Nobody will snatch rice.'

Intra-household disputes over cash: Another interesting insight from the fieldwork was that when the investigators posed these questions to respondent households, a discussion ensued among different members of the household and sometimes led to heated debates and disagreements over which option was better. For instance, in Kamta village (Nalanda, Bihar), an argument ensued among a mother-daughter duo in the presence of the survey

[21] An argument often made in favour of cash payments is that since the money is to be credited into bank accounts, the entire system will be automated and can be implemented at the click of a mouse. This is indeed possible. However, it also bears mention that even in systems that are fully automated, delays can creep in. Delays in the flow of funds in the case of NREGA are one such example. In the state of Andhra Pradesh, where payments are fully automated, it has been noticed that between one-third and two-thirds payments are delayed. Similarly, banking correspondents (who extend banking services to rural areas) do not necessarily complete their transaction in a timely manner. More generally, smooth flow of funds is a major issue in most cash transfer programmes.

team. The daughter said that food is all right, 'mother does not understand, you [mother] have lost your mind; if we get cash, we will die of hunger.' The mother preferred cash and said, 'You are mad. If we get money, we will buy proper food.' This suggested that if cash were to be given, it could lead to similar disagreements over what it should be spent on.

Conversely, Sumita Lohara (Jharkhand), a tribal woman, felt that the in-kind transfer provided a protection from such disputes. She said, 'The ration we get is quite alright. Cash will be spent on alcohol, and nothing will remain for our children. If we get rice, everyone will share [eat] it.'

Women's concerns: Interestingly, and contrary to earlier findings (see Devereux 2001, for instance), women were only marginally more averse to cash than men. While 71 per cent of female respondents preferred food, 63 per cent of male respondents were in favour of food.

There are, however, two sets of concerns that were voiced by women specifically. Single women brought up social or cultural restrictions on their physical mobility. This made them apprehensive about the shift to cash transfers, which would necessitate going to the bank and market. Women also seemed slightly uncertain and diffident about being able to handle banking procedures and purchase activities in the market, even though some recognised that these could be overcome over time. Nile Majhi, a widowed tribal in Orissa, said she 'did not want to move from shop to shop in search of rice'. Responses were peppered with statements such as 'forms will have to be filled', 'fights [arguments] with bank officials' and so on.

3.2.6 Concerns of Specific Demographic Groups

Single-member households, the elderly and disabled persons: Sudhir Jha is a widowed Brahmin living in Bihar. He felt that 'grain is fine; otherwise, I will have to search for it, which is difficult since I am living alone. The stomach comes first, then money.' Nallaboyna Nellakka (Andhra Pradesh), an unmarried 70-year old tribal woman, said that she spends an hour to get to the ration shop, which is only 1 km away. She cannot even imagine going to the nearby market.

The elderly, disabled, and single persons were also worried that cash would mean going to two places instead of one. Alaudin (Bihar), aged 60 years, who could see the advantages of cash said, 'We are not lettered, we will have trouble at the bank. The ration shop is close to us; with banks, our work will be doubled. However, we do not get as much [grain] as we should. With money, we can buy rations according to our need and fulfil other needs too.' Mohammed Anvasi (Bihar, 50 years) said, 'They may put money in our account, but we cannot eat money. There is no man in the house, so purchasing will be a problem for us.'

3.3 Transaction Costs and Transition Costs

Nidra (Chhattisgarh) made a perceptive comment: 'In the current system, the government deals with the tension of logistics; if we get money, that tension will be ours. Ration shops are just fine by us.' As Nidra mentions, in the current food-based system, the transaction costs (on procurement, storage, transport) are borne by the government. Cash transfers would pass on these costs to poor households. Distance, queuing, and rigidity (requiring the woman of the household to withdraw cash) can impose significant private 'transaction' costs on the poor. Respondents were concerned about the increase in their private transaction costs. Sudhir Pal (Dumka, Jharkhand) summed it up neatly: 'The PDS shop is our shortcut to food.'

It may be argued that cash transfers could also lower private transaction costs because markets, transport facilities, etc. would develop in response to cash transfers. However, this is not a given outcome—market response could also be counter-productive (for example, if existing traders block entry of new traders). Further, it seems to be assumed that the government intervention in the grain market is inefficient though there is some literature, which does not support this claim (Acharya 2000; Government of India 2002). In general, price stabilisation due to government intervention is understudied (Chand 2003).

From the government's viewpoint of trying to contain expenditures, cash transfers could result in a reduced fiscal burden. Of course, the savings from reduced 'public' transaction costs could be used to compensate households for the increase in their (private) transaction costs. If current public transaction costs are greater than the sum of private transaction costs, then cash transfers could lead to an improvement in terms of fiscal implications even after compensating households for the increase in their private transaction costs. Whether cash transfers can reduce the fiscal burden, even after compensating households' private transaction costs, requires an estimation of private and public transaction costs.[22]

Transition costs refer to the economic and non-economic costs that would be associated with moving from a food-based system to a cash-based system. Some of these

[22] One reason perhaps for these omissions is that the economics discipline has been too concerned with evaluating this debate from the government's perspective, and not enough from the people's perspective.

would be one-time costs (e.g., opening a bank account); others could be recurring costs (learning to cope with banking procedures, bulk purchase of grain from the open market, etc). The duration for which these costs will have to be borne again depends on the context; in areas with high literacy rates, and reasonably well developed banking facilities, the adjustment may be faster than in remote areas with poor administrative capacity. A priori, it appears that the more disadvantaged people are, the higher these transition costs would be. The hardship imposed on the poor in the transitory phase also needs to be factored into these debates.

A survey by Muralidharan, Neihaus, and Sukhtankar (2011) in Bihar has some information on the value of private transaction costs and transition costs.[23] They report that:

> We found that 64-82 per cent of BPL households and 39-48 per cent of Antyodaya households produced a valuation of the cash transfer that is higher than the maximum FPS subsidy. Note that there is a disconnect between the responses to this question and the previous one: while over 95 per cent of respondents reported wanting to be part of a cash transfer pilot that provides them with a cash payment *equal to the value* of the current subsidy, in this section, a majority of respondents suggested that the value of transfer that they would require would be *higher* than the current value of the subsidy (p. 13).

In their study area, the current subsidy in rural (urban) areas is Rs 278 (Rs 318) and Rs 460 (Rs 506) for BPL and Antyodaya households respectively. The minimum threshold amount that households wanted in order to make the switch from food to cash is Rs 587 (577) and Rs 633 (Rs 694) for rural (urban). Thus, the amount is more than twice as high for rural BPL households. In general, the total mark-up is higher in rural areas, which fits the findings of this study, i.e., the remoteness of markets and banks makes cash a more costly option for the rural poor.[24]

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[23] 'Starting with the amount of Rs. 250 per month (determined prior to the survey based on a rough sense of the minimum FPS subsidy received by certain households), surveyors asked respondents whether they would prefer to receive their ration next month or a specified amount of cash. The amount was increased in Rs. 50 increments until a maximum offer of Rs. 1,000 was reached. If the respondent did not accept any offer below Rs. 1,000, the surveyor asked directly for the minimum amount he or she would be willing to accept' (Muralidharan, Neihaus, & Sukhtankar 2011).

[24] Further, note that Bihar is a state where the PDS may not be valued by respondents because the system does not function well in that state. Where the PDS functions, it is likely to be valued even higher.

The PDS 2011 Survey investigators asked respondents for their views about 'double' the cash equivalent of their current PDS commodity basket.[25] Of those for whom we have responses, 51 per cent still preferred food over cash; 41 per cent switched from food to cash; and the remaining 8 percent were unclear or undecided.

3.4 Cash Over Food

The discussion so far has focused on the advantages of food over cash. Overall in our sample, less than one-fifth (17.9 per cent) of the respondents favoured cash over food. In Bihar, however, more than half of the respondents preferred cash (Table 1). The arguments in favour of cash are given below. Most arguments were neatly summed up by Chandra Dev Prasad (Bihar): 'Money will be good. It will be convenient. We will get it on time; on a monthly basis. We can buy half a kilo of vegetables, 1 kg dal. We can save also.'

Another interesting discussion took place with Murali Chellapan (Tamil Nadu). The investigators note:

> The respondent, being an educated young person, finds it very convenient to deal with banks and market. Because the quota [of PDS grain] is insufficient, they have to make a trip to the market anyway. Rather than go through the hassles of waiting at the PDS outlet, it is easier to buy all the provisions at once. The old and poor who will be unable to travel will be helped by others. Since the amount credited to their account will be very meagre, it cannot be easily misused or accumulated—it will only be used for daily expenses. It is advantageous to store money which can earn interest rather than grain which will attract pests. He has complete faith that the government will provide enough cash and raise the amount periodically.

Tamil Nadu is the only state in the sample (and in the country) that has a universal PDS and where we used the voter list rather than the BPL list for identifying sample households. It is because of this that there were some 'non-poor' (or less-poor) respondents in the sample as well, and it is likely that the survey would have had more such responses if the non-poor had been included in other states as well. This contrast in the responses of the poor and the non-poor is of much interest.

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[25] This 'doubling' question was asked only in the second district in each state. Unfortunately, the answers were not recorded systematically. Out of approximately 600 households in the second district, if two-thirds of households opted for food in the first instance, the doubling question would be relevant only for 400 households. However, we have responses of only 209 households.

Fungibility of cash: As Table 3 reports, 62 per cent of those who preferred cash transfers mentioned the fungibility of cash as an advantage over food. Kalimati Raut (82 years, widow) from Orissa said she sells some of her ration for money to buy medicines. She preferred cash. Similarly, Thaka Majhi from the same village said he could use it for his daughter's wedding (although he did not want the PDS to be shut). Punaram Bhanaji (Rajasthan), a tribal, said if they get cash, 'we can take good care of our children'. Ruparam (Rajasthan), a Dalit, said if they get money, they can 'buy whatever they need, apart from grain'.

Quality of grain: Related to the fungibility of cash, some respondents were unhappy that the quality of grain they received through the PDS was erratic. Among those who preferred cash, half mentioned the quality of grain as one reason for preferring cash (see Table 3). They felt it would be better if they got cash and could have control over their grain purchase. As Sanhala Murmu (Bihar) said, 'With money, we can see the grain and buy. We can eat anything.'

Regularity: Some respondents had greater faith in money being deposited more regularly than the supply of grain to the PDS shop. Vimla Devi (Uttar Pradesh) preferred cash because, she said, 'We have not got our PDS ration for the past 4–5 months; the dealer says my ration card is fake.'

Corruption: In states where the PDS does not function well, this complaint came up often. Between one-third and one-half of respondents who preferred cash mentioned corruption as the reason (Tables 2 and 3). They did not receive anything (or received very little) from PDS outlets, and felt that at least cash in their account would reach them. In Bihar, Govindhari Trivedi said, 'Money is best; we will not have to beg in front of the dealer and [there will be] no diversion.'

Meena Devi (Jharkhand) said that if they are unable to buy their ration in one particular month, they do not get it the next month either. However, with cash, that problem will be solved as it will remain in their account. The possibility of saving money was another attractive feature for those who preferred cash.

4 SOME QUANTITATIVE RESULTS

So far, we have used the empirical data to outline the analytical issues. In fact, it is possible to use data from the survey to run simple probit regressions with the 'choice' made by respondents as the dependent variable and the contextual variables on the right-hand side. In spite of the econometric issues that might be associated with the nature of the data, the results can tell us something useful about the strength of the associations between the variables in a multivariate context. In this section, I report the results of probit regressions with the preference expressed by respondents—food or cash—as the dependent variable. The main focus is on probit regressions where the dependent variable 'food' takes the value 1 for those households that expressed a clear preference for food over cash and 0 otherwise. Two sets of regressions are carried out: a 'direct' method and an 'indirect' method.

4.1 Direct Method

The dependent variable ('FOOD', i.e., respondents who said that they preferred to receive food rather than cash) is regressed on variables that 'directly' or 'indirectly' capture the factors outlined in the previous section. The 'direct' method uses a binary variable to capture the 'reasons' given by the respondent for their choice. For example, if the respondent mentions the distance to the market as a reason for preferring food to cash, the variable 'market' takes the value 1 (otherwise it is 0). These are used as explanatory variables in Table 6. Here, the explanatory variables include 'inflation' (= 1 if the respondent said that she/he was worried about inflation; = 0 otherwise) and so on. (See Table 6 for further details.)

4.2 Indirect Method

In the 'indirect' method, I use the actual measures of some of the factors mentioned above. In the case of access to banks and markets, for example, the distance in kilometres is used as an explanatory variable; to capture variation in responses due to demographic factors, I use age and sex of the respondent; and so on. In this sense, the 'indirect' method has more information than the 'direct' method.

Table 5 presents the summary statistics for all the explanatory variables that have been used in the 'indirect' method. Both methods include a measure of the performance of the PDS, i.e., the 'purchase-entitlement ratio' (PER). The PER measures what proportion of the grain that the households are entitled to was actually purchased by them in the past three months. If they got their full entitlement, PER = 100. Thus, a higher PER suggests that the PDS delivers better.

A range of socioeconomic household characteristics may also affect individual preferences. To capture economic status, I used size of landholding, a standard of living index (SLI) score, and occupational dummies.[26] A caste group dummy is also included to

[26] So far as land is concerned, two specifications were tried: size of landholding and a dummy variable for landless.

see if preferences of disadvantaged groups such as SCs and STs are systematically different.

The PDS Survey 2011 also contains information on some relevant institutional factors listed in the previous section, such as delivery of PDS grain and distance to the PDS outlet, banks, and markets—concerns that affected individual preferences.

The analytical section above suggests that individual characteristics such as gender, age, literacy status, and occupation are likely to bear upon people's responses. For instance, earlier literature has shown that women are more likely to opt for food than for cash. As noted in Section 3, older respondents may be averse to cash. Similarly, and perhaps relatedly, illiterate persons are likely to prefer food (as they may be unable to cope with banking procedures, for instance).

4.3 Results

As Figure 1 and Table 1 show, the performance of the PDS influences people's responses. In Figure 1, we notice a clear correlation between the PER and proportion of households preferring food. Indeed, this is the most robust result in all specifications reported in Tables 6 and 7. Where the PDS delivers, people are more likely to prefer food to cash.

Table 6 Cash vs. food: Concerns and preferences (Direct method)

	(1) 'Baseline', all households	(2) Bihar only	(3) SC/ST only		
PER (SC)	0.003 (1.62)*	0.013 (8.26)***	0.008 (1.74)*	0.005 (1.55)	0.015 (6.27)***
Dissipation	1.05 (9.21)***	0.987 (9.17)***	1.56 (4.14)***	1.108 (6.44)***	1.11 (6.93)***
Inflation	0.474 (3.32)***	0.580 (4.45)***	1.15 (2.63)***	0.575 (2.93)***	0.706 (3.96)***
Hoarding	0.801 (2.22)**	0.820 (2.00)**	0.10 (0.10)	0.639 (1.34)	0.644 (1.04)
Corruption	0.288 (1.49)	0.149 (0.85)	0.03 (0.04)	0.075 (0.29)	-0.007 (-0.03)
Remote market	0.538 (3.82)***	0.532 (4.16)***	-0.49 (-1.08)	0.454 (2.30)***	0.608 (3.28)***
Remote bank	0.262 (1.82)**	0.276 (2.04)***	-0.12 (-0.26)	0.194 (0.96)	0.311 (1.52)
Banking hassles	0.399 (3.00)***	0.396 (3.18)***	0.08 (0.16)	0.520 (2.5)3***	0.626 (3.28)***
Unfamiliar with banking	0.786 (5.64)***	0.760 (5.72)***	1.48 (3.10)***	0.739 (3.90)***	0.681 (3.54)***
Stealing	-0.523 (-1.30)	-0.702 (-1.97)**	-0.85 (-1.29)	-0.664 (-1.11)	-0.88 (-1.74)*
Other transaction costs	0.707 (4.17)***	0.670 (4.14)***	1.88 (2.88)***	0.746 (2.83)***	0.853 (3.18)***
Other reasons	0.760 (3.71)***	0.611 (2.87)***	-0.78 (-1.09)	0.784 (1.64)*	0.911 (1.98)**
State dummies					
Negative, significant	Bihar	-	-	Bihar	
Positive and significant	Andhra, Orissa, Chhattisgarh, Jharkhand, Himachal	-	-	Andhra, Orissa, Himachal, Chhattisgarh, Jharkhand, Tamil Nadu	
Positive, not significant	Rajasthan, Tamil Nadu	-	-	Rajasthan	
N	1200	1200	143	621	621
Pseudo R	0.4	0.31	0.43	0.41	0.34

Notes: 'Hoarding' = 1 if respondents were worried about local traders creating artificial shortages by hoarding grain; = 0 otherwise; 'Corruption' = 1 if corruption was a worry with respect to cash transfers; = 0 otherwise; 'Remote market' = 1 if the remoteness of markets was a worry; = 0 otherwise; 'Remote bank' = 1 if remoteness of markets was a worry; = 0 otherwise; 'Banking hassles' = 1 if withdrawing money from the post office or bank account entailed hassles; = 0 otherwise; 'Unfamiliar with Banking' = 1 if respondents were nervous about newness of banking experience; = 0 otherwise; 'stealing' = 1 if respondents had safety concerns with respect to cash; = 0 otherwise; 'Other Transaction Costs' = 1 if respondents reported other transaction costs associated with cash transfers; = 0 otherwise; 'Other reason' = 1 if respondents cited reasons other than the pre-coded ones listed above as a worry related to cash transfers; = 0 otherwise.

Table 7 Cash vs. food: concerns and preferences (Indirect method)

	(1) Baseline: All households		(2) Bihar only	(3) ST/SC only	
PER [a]	.013*** (6.30)	0.003 (1.10)	0.167* (1.63)	.011*** (3.81)	.002 (0.46)
illiterate	.372*** (3.41)	.375*** (3.18)	1.711 (1.02)	.364*** (2.31)	.240 (1.42)
age	-.006* (-1.65)	-.007* (-1.73)	-.0294 (-0.29)	-.005 (0.88)	.0013 (0.21)
sc	-.007 (-0.06)	-.018 (-0.14)	2.286 (0.72)	-	-
st	.735*** (5.41)	.447*** (2.64)	-	-	-
c_labour	.162 (1.56)	.156 (1.38)	-	.0170 (0.12)	.041 (0.26)
sli_score	.034*** (3.54)	-.021* (-1.62)	0.062 (0.25)	.041*** (2.35)	-.013 (-0.59)
market [b]	.023*** (2.66)	.006 (0.69)	0.918 (1.19)	.017 (1.24)	.017 (1.12)
pds_distance [b]	-.034 (-1.02)	-.070* (-1.84)	1.699* (1.74)	-.044 (-1.09)	-.109*** (-2.35)
bank_distance [b]	-.004 (-0.46)	.001 (0.13)	0.385* (1.66)	.023* (1.72)	.0162 (1.11)
bank_account	-.219 (-0.66)	-.284 (-0.85)	-	-.825 (-1.49)	-1.106** (1.89)
State dummies					
Negative, significant	-	Bihar	-	-	Bihar
Positive and significant	-	Andhra, Orissa, Chhattisgarh, Tamil Nadu, Himachal	-	-	Andhra, Orissa, Chhattisgarh, Tamil Nadu, Himachal
Positive, not significant	-	Rajasthan, Jharkhand	-	-	Rajasthan, Jharkhand
_cons	-.870 (-2.01)	.1024 (0.21)	-18.628 (-1.98)	.068 (0.11)	.640 (0.87)
N	821	821	30	420	420
Pseudo-R2	0.11	0.21	0.62	0.07	0.22

Notes: 'Tables report co-efficients and robust z-scores. ***Significant at 1%, **Significant at 5% and *Significant at 10%. Notes: [a]'PER' (with entitlements adjusted to take into account extra due to Supreme Court orders). [b]Distance to nearest PDS outlet, market, and bank from the village or household.

Tables 6 and 7 report two variants—with and without state dummies—of three regressions. The first are the 'baseline' regressions, (2) reports results only for Bihar state, and Regression (3) is for the subset of SC and ST households only.

Table 6 reports the results for the 'direct' method described above. Here, we find the institutional factors, as captured by the PER, and the distance to bank and market dummies have the expected sign (i.e., increase the likelihood of respondents preferring food) and are significant at the one per cent level. Most other factors outlined in Section 3 are significant—dissipation of cash, inflation, and transaction costs.

The results in Table 7 show that neither age nor gender is significant in the regressions.[27] I tried dummies for single-member households and single women. These 'demographic' variables are generally not significant. However, a strong and robust relationship does emerge between literacy and food preferences. Illiterate persons are more likely to prefer food. This is not surprising as literate respondents may be better able to deal with banks and banking procedures. Further, they are more likely to be from better off households. Households with higher incomes are more likely to have a diversified food basket and less interest in just subsidised grain from the PDS. On the other hand, they may prefer cash for its fungibility.

Sample households were, on average, 5.2 km away from the nearest bank or post office. PDS outlets were much closer (1.4 km). Only 37 per cent of respondent households were within 2 km of a bank or post office, whereas 81 per cent were within the same distance of a PDS outlet. Just over one-third of respondents preferred food to cash because of the distance to the bank or post office and to the market and the hassles of withdrawing cash. However, in the regression (Table 7), the presence or absence of markets and banks is not significant. When the distance to the bank, the market, and the PDS outlet are included in the regressions, they have the expected sign (the further away the bank/market is, the more likely people are to opt for food), but they are insignificant. Except in Regression (3), which are for SC and ST households only—suggesting perhaps that these disadvantaged communities live in especially inaccessible areas—the results are significant.

Occupational group—whether a dummy for casual labour (reported in Table 7) or for regular employment (not reported in the Table)—is not significant. The degree to which a family is 'food secure' may also be an important factor but not relevant. Finally, I included a dummy variable for whether the household already has a bank account. A negative sign on this could indicate that since households are familiar with banking, they are more open

[27] Age is only significant in the 'baseline' regression (column 1). I also tried a non-linear regression by including age and age squared together. Neither is significant. Female dummy is positive, but not significant.

to the idea of cash, whereas a positive sign could indicate that they have had bad experiences at the bank and therefore prefer the food option. We find that having a bank account does make respondents less likely to choose food, but it is not significant.

The second interesting result worth highlighting is when the same regression is run only for Bihar state. Bihar is the only state in the sample where a majority of the respondents were open to the cash alternative. Here (see Regression (2) in Table 7), we find that among the Bihari respondents too, the response is positively and significantly correlated with the PER—when the PDS delivers in Bihar, respondents were significantly more likely to stick with the food option.

5 CONCLUSION

Before concluding, a quick mention of Brazil, which runs a successful cash transfer programme (Bolsa Família) might be useful. Bolsa Família's success is often brought up in the Indian context, but some basic—and pertinent—contextual factors are generally overlooked. To put things in perspective, only 14 per cent of the Brazilian population is in rural areas. In 2005–06, the proportion of the Indian population living under PPP $1.25 per day ranged between 20 and 42 per cent compared with less than 10 per cent in Brazil. The comparative numbers on nutrition-related indicators are even more striking. Nearly half of Indian children under three were underweight in 2005–06 compared with two per cent in Brazil (in 2007). Further, essential features of Bolsa Família are often overlooked in India: it is a *conditional* cash transfer programme (so it does not resolve the 'paternalism' associated with food that advocates of cash worry about) and cash transfers go hand in hand with in-kind provision of schools and medical facilities rather than replacing government interventions.

This paper sets out to examine the arguments in favour of food and cash transfers in the rural Indian context. Using empirical data from 1227 households in nine Indian states, where respondents were presented with the two alternatives, the paper examines both the variation in their preferences as well as the arguments made for the preference expressed. The paper uses the qualitative data to lay out the analytical issues with respect to cash or food transfers, and also uses probit regressions to shed light on some of the analytical issues discussed.

While the quantitative analysis here is only exploratory in nature, it corroborates some of the analytical issues emerging from the qualitative data. Limited as it may be, one result is quite clear—in states where the food system works well, respondents are more likely to prefer food over cash. Interestingly, even in Bihar, where a majority of respondents were open to the idea of cash, we find that the responses vary (significantly) with the indicator that measures the performance of the PDS (PER). The quantitative analysis also points to the need for more detailed work along these lines. Hence, more empirical work is required to understand better the role of such institutional and socioeconomic factors in such policy decisions as not much is available on the estimation of transaction costs and transition costs.

The earlier literature explores several theoretical arguments—paternalism, societal preferences, pecuniary benefits, and so on—for in-kind transfers. But contextual factors, including institutional (such as the functioning of markets) and socioeconomic factors (e.g., level of subsistence, education, social norms), have not found much space in the earlier theoretical literature. This paper adds to a growing empirical literature which points to the significance of these contextual factors (see Narayanan 2011; Gentilini 2007).

More importantly, while the distinction between 'nudges' and paternalism is well recognised in economics now, this distinction is not made in the theoretical debate on the issue of cash transfers versus in-kind transfers. Further, there has been a tendency to view what is essentially a 'political' commitment to equality (e.g., in the work of Tobin and Kelman) through a more narrow (and incorrect) utilitarian perspective of societal preferences or interdependent preference. The main conclusion that emerges from the empirical data examined here is that whether in-kind (in this case, food) transfers or cash transfers are better, depends ultimately on the context in which the policy is being explored.

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