Reforming or Replacing the Public Distribution System with Cash Transfers?

Peter Svedberg

The targeted public distribution system, intended to provide subsidised food to poor households, is the largest welfare programme in India, with a budget corresponding to about 1% of the net national product. Several studies have found the system to be inefficient and costly in assisting the poor. This paper analyses the case for, and against, replacing a reformed version of this system with a targeted and differentiated cash转移 scheme. Such a scheme could cover about two-thirds of households, and make far larger transfers to the poorest compared to the actual subsidy embedded in the current system, eliminating the risk of large exclusion errors. Further, the overall budget can be held at the present outlay level. It is argued that most of the objections to such a transfer scheme can be circumvented at the design stage.

The rapid economic growth India has experienced since the economic reforms gained momentum in the early 1990s, at an annual rate of about 5% per capita, has not been followed by much improvement in welfare of the poor. The National Sample Survey Office (nss) surveys show that the average monthly per capita household consumption expenditures (mpce) only grew by 1.5% per year from 1993-94 to 2009-10. Poverty, as measured by the share of the population with mpce below the official poverty line, only dropped from 36% to 27.5% between 1993-94 and 2004-05, the two years for which comparable official estimates are available so far. (New estimates for 2009-10 are expected shortly.) The dismal reductions in poverty show that the shining economic growth in India has left large sections of the population in the shade. It is therefore understandable and laudable that the Government of India (goi) has rejuvenated and extended the financing of several large welfare programmes in recent years.

The largest permanent goi welfare scheme is the targeted public distribution system (tpds), which aims at providing subsidised food to mainly poor households. The overall objectives of this paper are to highlight the functioning of the tpds till date and discuss the case for replacing it with a targeted cash transfer (ct) scheme. These issues have been intensively analysed and debated in recent years by academics, government officials, politicians, media representatives, non-governmental organisations (ngos), advocacy groups and international organisations. The debate has often been quite polarised and not always very analytical. Narayanan (2011) even claims that:

Missing from these discussions, however, is a careful assessment, based on substantive and scholarly empirical evidence, of the ability of cash transfers to achieve stated goals and the contextual conditions under which these programmes can succeed or fail.

There are, however, important exceptions, for example, Kapur et al (2008), Drèze and Khera (2010), Khera (2011b) and Himanshu and Sen (2011), not cited by Narayanan.

The present paper aims at contributing more “substantive evidence” by making a step-by-step, issue-by-issue comparison of (1) the existing tpds, (2) the main proposals for a semi-universal food subsidy programme, and (3) a targeted and differentiated ct scheme. What this paper attempts to contribute more specifically can be summarised in five points. First, the paper analyses the flaws in the present tpds; many of these are well known, but the findings here show the inefficiencies (excessive costs) to be even larger
than earlier understood and the effects on the main outcome variables, poverty and malnutrition, to be practically nil. Second, the paper assesses recent proposals for a reformed TPDS and finds them to be more costly than hitherto projected. Third, a simple model for how to select households for inclusion in a CT scheme is developed, based on three inclusion criteria that are easy to understand, transparent, verifiable, difficult to falsify and intended to include two-thirds of all Indian households, thus ensuring that exclusion and inclusion errors are minimised. Fourth, it will be shown that the proposed CT scheme can be financed within the present TPDS budget – while the reformed and semi-universal PDS programmes that have been suggested would entail at least a doubling of the budget. Finally, it will be argued that most of the objections to a comprehensive CT scheme in India are based on obsolete perceptions of the technological infrastructure required, or are “problems” that can readily be handled at the design stage.

**Benefits to Poor Households and TPDS Budget: A Snapshot**

The two main (interrelated) aims of the TPDS are to alleviate poverty and malnutrition among poor households. In 2004-05, nearly 20 million poor households holding below poverty line (BPL) or Antyodaya Anna Yojana (AAY) ration cards purchased an estimated 3.6 million tonnes of subsidised TPDS grains. The 33.5 million poor households without such cards managed to buy an additional one million tonne, bringing the total up to 4.6 million tonnes. With a weighted average subsidy of TPDS grains of approximately Rs 4,100 per tonne (Rs 4.1/kg), the estimated total subsidy to all poor households amounted to about Rs 19 billion in 2004-05 (Table 1).

### Table 1: Estimated Actual and Hypothetical Transfers to Poor Households Embedded in the TPDS Subsidy, Rural and Urban Areas Combined (2004-05)

<table>
<thead>
<tr>
<th>Household Category</th>
<th>TPDS Grain Purchases (kg/Household/Month)</th>
<th>TPDS Subsidy (Rs/kg)</th>
<th>Value of TPDS Subsidy (Value of TPDS subsidy per Person per Month)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor households</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural with BPL</td>
<td>14.69</td>
<td>3.91</td>
<td>574</td>
</tr>
<tr>
<td>AAY with BPL</td>
<td>17.43</td>
<td>4.96</td>
<td>86.5</td>
</tr>
<tr>
<td>Rural without BPL</td>
<td>2.6</td>
<td>3.91</td>
<td>10.2</td>
</tr>
<tr>
<td>AAY without BPL</td>
<td>2.48</td>
<td>4.96</td>
<td>12.3</td>
</tr>
<tr>
<td>Rural AAY alone</td>
<td>2.56</td>
<td>4.23</td>
<td>10.8</td>
</tr>
<tr>
<td>Urban AAY alone</td>
<td>7.57</td>
<td>3.79</td>
<td>28.7</td>
</tr>
<tr>
<td>Combined*</td>
<td>15.17</td>
<td>4.09</td>
<td>62</td>
</tr>
<tr>
<td>Poor households</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural with AAY</td>
<td>14.69</td>
<td>3.91</td>
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</tr>
<tr>
<td>Combined*</td>
<td>15.17</td>
<td>4.09</td>
<td>62</td>
</tr>
</tbody>
</table>

*Weighted average by size of rural/urban population in respective household category. Source: Calculations based on NSS (2007), Detailed Tables 1R, 1U, 5R and 5U.

The subsidy to the average poor household was about Rs 30 per month, or Rs 6 per person, the equivalent of a 1.5-2% increase in their MPCE (Table 2). These subsidies are calculated on the basis of the share of poor households holding BPL or AAY cards and their actual purchases of the TPDS grains. In a hypothetical situation where all poor households are issued BPL or AAY ration cards and utilise their full allowance (35 kg/month), the subsidy to poor households would be almost five times higher than the actual figure (Table 1, column [4]).

When it comes to the second main objective with the TPDS, to improve food security and nutrition, the outcome is even more disappointing. One would expect that poor households holding BPL or AAY ration cards consume more food than poor households who have to purchase (almost) all their grains at higher market prices. In 2004-05, it was the opposite. Poor cardholder households consumed 3.6% less rice and wheat than their peers without the cards (Table 3). The difference is not large (and non-significant), but it refutes the hypothesis that the TPDS has improved food security and nutrition for the poor in India.

### Table 3: Poor Households’ Purchases of Rice and Wheat from All Sources (PDS and Other) (2004-05)

<table>
<thead>
<tr>
<th>Area</th>
<th>Poor Households</th>
<th>Difference (Rs/kg Household/Month)</th>
<th>Difference m%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>51.95</td>
<td>54.35</td>
<td>-2.4</td>
</tr>
<tr>
<td>Urban</td>
<td>49.81</td>
<td>50.48</td>
<td>-0.67</td>
</tr>
<tr>
<td>Combined #</td>
<td>51.36</td>
<td>53.28</td>
<td>-1.92</td>
</tr>
</tbody>
</table>

*Three lowest MPCE deciles. Source: Calculations based on NSS (2007), Detailed Tables 1R, 1U, 5R and 5U.

There is no separate budget for the TPDS (Department of Food and Public Distribution 2010), only for total government food subsidies (Rs 245 billion in 2004-05). However, the oftake of grains for this programme in the total offtake from the central pool was 71.5%. Under the assumption that the TPDS budget accounted for the same share in total food subsidies, one arrives at a rough estimate of the TPDS budget of approximately Rs 175 billion (while the balance, Rs 70 billion, was budgeted for other food programmes). The total subsidy to poor households (Rs 19 billion) corresponded to about 11% of the TPDS budget in 2004-05 (Table 1). This implies that for each rupee transferred to poor households through the TPDS, the GOI had a budget expenditure of Rs 9. The estimate is considerably higher than the equivalent estimate, Rs 3.65, from the Planning Commission (2005), based on data for 2003-04. In 2004-05, the TPDS budget accounted for 3% of total government expenditures and nearly 1% of net national product (NNP).
The goi hence spent about 1% of national income to boost the purchasing power of the average poor household by less than 2%. The meagre subsidy to poor households embedded in the TPDS – in relation to budget costs – and the failure to enhance food consumption and nutrition, reflect severe malfunctioning across several dimensions.

Waste, Leakages and Diversion

The Planning Commission (2008) has estimated how much of the TPDS rice and wheat are leaked en route by first estimating the amount of such grains reported to have been purchased by all household categories – poor and non-poor, with and without ration cards of all types, whether BPL, AAY or above poverty line (APL). These estimates are subsequently compared to data on how much grain is taken off from the Food Corporation of India’s (FCI’s) central pool for delivery to the TPDS depots in the states. The Planning Commission (2008) has estimated the leakages at three points in time, the most recent being 2004-05 (Table 4). In this year, consumers are reported to have bought 13.53 million tonnes in the fair price shops (FPS), out of which 4.6 million tonnes were bought by poor households. In the same year, 29.65 million tonnes of rice and wheat were taken off the central pool for TPDS cardholders, including APL. Hence, more than half (54%) of the grain taken off for the TPDS disappeared before it reached buyers in the FPS. Moreover, the leakages have increased compared to 1993-94 and 1999-2000, and are estimated at 28%. Estimates based on a “small” expenditure survey from 2007-08 suggests that the leakages have declined somewhat, to 43% since 2004-05 (Himanshu and Sen 2011; Khera 2011), but were still larger than in 1999-2000.5 (When the final household food expenditure data from the 2009-10 NSS become available, it will be possible to gauge the trend more reliably.)

<table>
<thead>
<tr>
<th>Table 4: Estimated Consumption of TPDS Rice and Wheat as a Percentage of TPDS off-take, Rural and Urban Areas Combined, Selected Years (million tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPDS consumption</td>
</tr>
<tr>
<td>TPDS off-take</td>
</tr>
<tr>
<td>Leakage (%)</td>
</tr>
</tbody>
</table>

* The estimate for 2007-08 is based on data from a “small” NSS and may not be strictly comparable with the previous “large” survey estimates.

Sources: Planning Commission (2008), Table 4.1.8 (1993-94 to 2004-05); Himanshu and Sen (2011), Table 4 (2007-08).

The estimated 4.6 million tonnes of TPDS grains purchased by poor households – with and without BPL or AAY ration cards – corresponds to 15.5% of the total off-take of TPDS grains (29.65 million tonnes). This means that for each kg of subsidised grains bought by the poor, the off-take from the central pool was 6.4 kg. This estimate is considerably higher than the 2.4 kg estimate for 2003-04 from the Planning Commission (2005).

That about half the TPDS grains is leaked before reaching consumers reflects inefficiency, corruption and theft on a gigantic scale. It would, of course, be helpful for policy purposes to know more about where in the long supply chain the losses are the most serious, but as with corruption and illegal activities in general, solid information is simply not available. Most of what is known stems from cases that have led to criminal investigation and/or court convictions and have been reported in national and international media. These cases include corruption and theft at all levels, from fraudulent small FPS owners to chief ministers, in some cases of mind-boggling scales.6

The obvious way of limiting losses during storage is to ensure that facilities are adequate, but the de facto safe capacity has remained largely unaltered despite growing stocks (Department of Food and Public Distribution 2010). In order to reduce leakages during transportation, computerisation of the TPDS has been introduced on a pilot basis in four states. The new techniques include GPS tracking of vehicles transporting TPDS grains, and deployment of clearly marked trucks to facilitate monitoring of routes and unloading places. To reduce diversion of grains at the retail level, easy-to-forge ration cards made of simple paper (and not always showing a photo of the holder) have increasingly been replaced by digital ration cards that are difficult to manipulate and can be used to document sales electronically. (See Department of Food and Public Distribution 2009 for further initiatives planned for cutting leakages during storage and transportation.)

Most of the reforms in these areas are quite recent and so far only implemented on a pilot basis in a few states or districts. Evaluations from Tamil Nadu and Chhattisgarh, the states that have been in the forefront of implementing reforms, find improvements in operations and reduced leakages, but at a higher financial burden for the state governments for topping up goi subsidies (Himanshu and Sen 2011).

With a CT scheme and cash channelled electronically to eligible poor households through the Aadhaar unique identification numbers (UIDs) that all Indian citizens will be issued over the next few years, according to plan, most leakages would be reduced. The central storage of grains for the TPDS, amounting to 30 to 35 million tonnes per year (the off-take for this programme), will vanish and so will almost all storage waste, as the existing high-quality godowns are sufficient for holding the remaining food security buffer stocks (between 20 and 30 million tonnes). Most of the enormous transportation activity carried out by the FCI would be taken over by private agents that already now handle such operations in open markets at considerably lower cost (Planning Commission 2005). With a CT scheme, the FPS would disappear, or be converted to ordinary commercial shops, and the problem with diversion of grains at the retail level evaporates.

Underutilisation of TPDS by Eligible Poor Households

In 2004-05, the latest year with detailed statistics, poor households holding BPL or AAY ration cards purchased on average less than half the TPDS grains they were allowed. At the same time, they bought about 70% of their total grain (around 50 kg per month) at market prices that were almost twice as high as the subsidised prices in the FPS (Table 5, p 56).7 The Planning Commission (2005), based on household interviews, found that purchases of TPDS grains are curtailed by both supply- and demand-side constraints.
The central government and the concerned ministries have undertaken (or plan) several reforms to make TPDS grain more attractive to poor households. Most importantly, the subsidy per kg of grain has been raised in real terms year-by-year by keeping the central issue prices (CIP) constant (or lowering them), while the retail market prices have gone up in line with inflation. The govt has also enacted a “right to information act” that aims at making poor households more aware of their entitlements and encourage the venturing of complaints.

That the average poor household holding a BPL or AAY ration card purchases less than half the TPDS grains allowed indicates serious dysfunctions in the system. One would expect that few households eligible for a cash transfer would abstain from collecting money. Thus, the underutilisation problem would be resolved. For poor households, cash in hand rather than subsidised, but low-quality grain from the PDS would be a great boon in several ways (Kapur et al 2008). As is the case now, many ration cardholders only have access to one PDS and therefore little ability to avoid cheating and bad service. With cash, they would be able to choose freely, not only which shop to buy grain from, but also the quality and variety of their preference. Cash transfers will also give households more flexibility to buy food items other than rice and wheat, which may encourage more balanced and nutritious diets. Perhaps most importantly, migrant workers, government employees, taxpayers and households in possession of expensive plantages would be able to withdraw cash anywhere.

Targeting

Exclusion and Inclusion Errors in 2004-05: In 2004-05, an estimated 25.7% of all Indian households had an MPCE below the official poverty line. Out of these, 9.6% were in the possession of a BPL or AAY ration card while 16.1% were not (Table 6, panel A). Hence, almost two-thirds (63%) of the poor households were not covered by the system, indicating a substantial systemic exclusion error. About 62% of all BPL and AAY cards were in the hands of non-poor households, suggesting a large systemic inclusion error.

Poor households holding BPL or AAY cards purchased some 30% of the total TPDS grain sales (estimated at 12.17 million tonnes), while other poor households managed to buy another 8%, or one million tonnes. Out of total TPDS grain sales, poor households hence bought about 38%. As the poor accounted for 25.7% of the population, the de facto targeting of the TPDS was slightly in their favour. The share of the grains bought by non-poor households holding BPL or AAY ration cards was also 38% – the actual inclusion error (Table 5, panel B).

The above estimates of exclusion and inclusion errors, and the similar ones derived by the Planning Commission (2008), build on the assumption that a household’s consumption expenditure (MPCB) in one particular month and year (2004-05) is a relevant proxy for its permanent income and poverty status. This assumption has to be qualified.

There is plenty of evidence showing incomes (earnings) of poor households fluctuating markedly over the short term. However, consumption expenditures are much more stable. The most detailed evidence from India is based on the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) database, which contains income as well as consumption expenditure data for a large number of households, month by month over several years. The two data series reveal how remarkably little present (monthly) household income influences present consumption. The smoothing occurs mainly through savings, borrowing and storing grains; very little occurs through sales or purchases of assets, such as livestock and consumer durables (Townsend 1995).

The low covariation between household income and consumption on a monthly basis suggests that the MPCB estimates obtained through the NSS, even if not estimated with perfect precision, ought to be quite good proxies for household permanent income, at least in the short and medium terms. We can therefore be reasonably well assured that the estimated exclusion and inclusion errors reported above are not totally off the mark.

Reforms for Improving Targeting in the TPDS: New central guidelines to the states for how ration cards should be allocated, planned to be issued in 2009, were agreed upon by the union cabinet only in May 2011. This delay attests to the difficulties and complexities involved. The new guidelines are a blend of inclusion and exclusion criteria and score rankings of households, much like the previous ones (from 2002), albeit less comprehensively. Those excluded are government employees, taxpayers and households in possession of expensive durable goods (projected at 28% of the population). Those listed below Table 6: Distribution of BPL and AAY Ration Cards and TPDS Grain Purchases by Different Income Categories of Households, Rural and Urban Areas Combined (2004-05) (estimated actual and systemic exclusion and inclusion errors)

<table>
<thead>
<tr>
<th>Household Category</th>
<th>Households with BPL or AAY Ration Cards (%)</th>
<th>Households with TPDS Purchases (%)</th>
<th>Total TPDS Purchases (million tonnes)</th>
<th>Number of Households (million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>9.6</td>
<td>16.1</td>
<td>25.7</td>
<td>53.3</td>
</tr>
<tr>
<td>Non-poor</td>
<td>14.8</td>
<td>59.5</td>
<td>74.3</td>
<td>153.8</td>
</tr>
<tr>
<td>All</td>
<td>24.4</td>
<td>75.6</td>
<td>100</td>
<td>207.1</td>
</tr>
</tbody>
</table>

Panel A: Distribution of BPL and AAY ration cards (%)

<table>
<thead>
<tr>
<th>Household Category</th>
<th>Households with TPDS grain purchases (%)</th>
<th>Number of Households (million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>30</td>
<td>6.8</td>
</tr>
<tr>
<td>Non-poor</td>
<td>38.4</td>
<td>31.6</td>
</tr>
</tbody>
</table>

Panel B: Distribution of TPDS grain purchases (%)

* The per cent of households estimated to be poor deviates slightly from the official estimate at 27.5% because the NSS (2007) data used here are more aggregated than the unit-root data applied by the Planning Commission.

Source: Calculations based on NSS (2007), Detailed Tables 1R, 1U, SR and SU.

Table 5: Estimated Purchases of Grain (Rice and Wheat) from TPDS and Other Sources by Average Poor Household Holding BPL or AAY Ration Card, and Embedded Subsidy, Rural and Urban Areas and Combined (2004-05)

<table>
<thead>
<tr>
<th>Purchase Source</th>
<th>Purchase Rice (kg/household/month)</th>
<th>Purchase Wheat (kg/household/month)</th>
<th>Total Purchase Rice (kg/household/month)</th>
<th>Total Purchase Wheat (kg/household/month)</th>
<th>Total Purchase (kg/household/month)</th>
<th>Price (Ru/kg)</th>
<th>Market Price (Ru/kg)</th>
<th>Subsidy</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPDS</td>
<td>14.69</td>
<td>37.13</td>
<td>51.83</td>
<td>0.283</td>
<td>4.46</td>
<td>4.66</td>
<td>4.66</td>
<td>9.6</td>
</tr>
<tr>
<td>Non-poor</td>
<td>32.05</td>
<td>49.48</td>
<td>81.53</td>
<td>0.352</td>
<td>4.66</td>
<td>4.66</td>
<td>4.66</td>
<td>16.1</td>
</tr>
<tr>
<td>Combined</td>
<td>15.17</td>
<td>36.24</td>
<td>51.41</td>
<td>0.295</td>
<td>4.5</td>
<td>4.5</td>
<td>4.09</td>
<td>9.6</td>
</tr>
</tbody>
</table>
automatically included are the homeless and others who are completely destitute (3-4%). Other households are to be assessed according to seven indicators and ranked in order of priority in the BPL list. All-in-all, with the new guidelines, 46% of rural households are expected to be included in the BPL list (Balchand 2011).

However, so far state governments have not been bound to follow the central guidelines; they have set up their own criteria for the distribution of ration cards. These vary from state to state; some have issued cards to most households while others only to a tiny fraction (Himanshu and Sen 2011). Large exclusion and inclusion errors nonetheless suggest that whatever criteria actually used for allocating BPL and AAY cards, in most states they have been quite blunt as instruments for targeting poor households.

Would the exclusion errors be eliminated by making food subsidies available to all households, i.e., by returning to the pre-1997 universal PDS? This is what the Indian Right to Food Campaign (RTFC), underwritten by many prominent scholars and organisations, has advocated and also what some analysts have concluded (Kotwal et al 2011). Drèze and Khera (2010) and Himanshu and Sen’s (2011) say that avoiding exclusion errors is central in their proposal for a (semi-) universal PDS.

The evidence in support of universality as an efficient method for eliminating, or even notably reducing, exclusion errors, is not altogether convincing. Before 1997, the PDS was in principle universal, but large proportions of poor households were either effectively excluded, or purchased very small amounts of subsidised grains. On the basis of 1993-94 NSS data, Dutta and Ramaswami (2001) found that the poorest household quintile, on average, managed to purchase about 10% and 20% of the PDS grains allowed in Maharashtra and Andhra Pradesh, respectively. Other evaluations of the pre-1997 PDS also report blunt de facto targeting of poor households (Jha 1992; Ahiulwalia 1993; Howes and Jha 1992, 1994; Dev and Suryanarayana 1991; Parikh 1994).

One may also gauge the extent to which universality reduces exclusion errors by consulting more recent estimates from Tamil Nadu, the only state that opted for a universal PDS after 1997. In 2004-05, about 80% of the households in the three lowest MPCE deciles in Tamil Nadu reported consumption of PDS rice, but practically no wheat. This share is more than twice as high as the all-India figure (NSS 2007), and literate workers (15-59 Years), Male and Female in Rural and Urban Areas (2004-05)

Targeting the Poor in a CT Scheme: In a non-targeted CT system, there would be no or few self-imposed motives for abstaining from claiming a cash receipt. A completely universal CT would hence carry a huge financial burden if the individual transfers are not to be merely symbolic. Moreover, the redistributional impact would not necessarily be particularly pro-poor (almost everyone pays, everyone receives). Some selection mechanism or conditionality is therefore called for. In a CT scheme with food security and poverty alleviation as the overall objectives, a low economic status is the obvious condition for eligibility.

Eligibility in an Indian CT system should ideally be based on conditions that are easy-to-understand, readily observable, transparent, objectively verifiable and difficult to falsify or qualify for through behavioural adaptation. In addition, of course, the criteria should be closely correlated to low income and wealth and lead to small exclusion and inclusion errors.

There is no perfect set of criteria that matches all these conditions, but the “model” suggested here should produce satisfying results, based on three inclusion criteria only: All scheduled caste (SC) and scheduled tribe (ST) households, all casual labour households and all households with no literate adult (Table 7).11

Table 7: Suggested Criteria for Selecting Households Eligible for Receiving CT and Estimated Shares of Eligible Households and Poverty Incidence in Respective Category, Rural and Urban Areas Combined, (2004-05)

<table>
<thead>
<tr>
<th>Inclusion Criteria</th>
<th>Household Meeting Criteria (%)</th>
<th>Poverty Incidence (%)</th>
<th>Poverty Over-representation (%)</th>
<th>MPCE as Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) SC/ST household</td>
<td>Rural 32.9</td>
<td>47.9</td>
<td>45.6</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td>Urban 18.1</td>
<td>28.2</td>
<td>55.8</td>
<td>73.7</td>
</tr>
<tr>
<td></td>
<td>Combined 30.3</td>
<td>44.4</td>
<td>46.5</td>
<td>80.5</td>
</tr>
<tr>
<td>(2) Male household head casual labourer</td>
<td>Rural 32.9</td>
<td>50.2</td>
<td>52.6</td>
<td>74.4</td>
</tr>
<tr>
<td></td>
<td>Urban 14.6</td>
<td>28.8</td>
<td>97.3</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Combined 27.9</td>
<td>44.7</td>
<td>60.2</td>
<td>71.6</td>
</tr>
<tr>
<td>(3) No literate adult household</td>
<td>Rural 26.1</td>
<td>na</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td></td>
<td>Urban 8.4</td>
<td>na</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td></td>
<td>Combined 21.2</td>
<td>na</td>
<td>na</td>
<td>na</td>
</tr>
</tbody>
</table>

Sources: (1) NSS (2010a), Table 19 (2007-08) and NSS (2007), Detailed Tables 3R and 3U (MPCE 2004-05) (Rural/Urban = 0.822/0.178). (2) NSS (2006a), Statement 5.8 (Rural/Urban = 0.725/0.275) for columns (1)–(3). Estimates in column (4) are based on NSS (2007), Detailed Tables 2R&2U. (3) NSS (2006a), Statement 3.8 (Rural/Urban = 0.725/0.275).

The three criteria delineate household groups (often overlapping) that are truly poor. Among SC/ST households, the prevalence of poverty in 2004-05 was 46.5% higher than suggested by their share in the population and their average MPCE only 80% of the all-India average. Among households where the (male) head was a casual labourer, the over-representation of poverty was 60%; their MPCE a mere 72% of the average (Table 7). For illiterate male workers, daily wages are less than half, and for illiterate female workers about one-fifth compared to their literate counterparts (Table 8).12

Table 8: Daily Wage and Work Force Participation Rates (WFPR) for Illiterate and Literate Workers (15-59 Years), Male and Female in Rural and Urban Areas (2004-05)

<table>
<thead>
<tr>
<th>Wage (Rs/day)</th>
<th>Work Force Participation Rate (WFPR)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Rural</td>
<td>Urban</td>
</tr>
<tr>
<td>Illiterate</td>
<td>72.5</td>
</tr>
<tr>
<td>Literate#</td>
<td>1819.2191.2183.921.253</td>
</tr>
<tr>
<td>Illiterate/literate (%)</td>
<td>39.9 45.1</td>
</tr>
</tbody>
</table>

* In rural and urban areas, 4.4% and 7.8% of all households reported that no member of the household was “usually employed” in 2004-05 (NSS 2006a, statement 3.9).
# Derived as residuals.
Source: NSS (2006a), statements 5.5 (WFPR), 5.6 (literacy) and 5.11 (daily wages).

The exclusion error can be expected to be small in the proposed CT scheme. It is difficult to believe that many households who are genuinely poor would fail to qualify on all three
criteria. The three criteria are all observable, easy-to-understand and transparent, but not foolproof verifiable. It is conceivable that a household can fake one inclusion criterion, most likely illiteracy, but hardly all three. Given that the transfers are differentiated and the sum provided to households who fulfil only one criterion relatively small, the incentive for reasonably well-off households for faking eligibility is weak. Inclusion error could occur, however, if many households under the three inclusion categories are in fact high-income earners. For casual labourers, readily available data show about 10% (rural and urban average) are in the three highest MPCE deciles (nss 2006a). This covers the about one-third relatively well-off households that are intended to be excluded from the proposed CT scheme. If the main concern is to avoid exclusion errors, inclusion errors of this magnitude may be tolerable.

The Financial Burden

Growing Financial Burden of the TPDS: The GOI food subsidy budget increased in real prices by a factor of 3.7 between 1999-2000 and 2009-10. The real NNP per capita increased by a factor of 1.7 over the same period, signifying that the growth of food subsidies outpaced the growth of national income per capita by a factor of 2.2. The steepest increase in the food budget occurred since 2006-07 (almost doubling), while NNP per capita grow by a cumulative 17.6% only (Figure 1).

Figure 1: Real Growth of NNP Per Capita, Food Subsidy Budget, TPDS Offtake and TPDS Purchases by All Consumers, Base 1999-2000

The offtake of grains from the TPDS for poor households holding BPL or AAY ration cards grew at roughly the same pace as the food subsidy budget over the entire 1999-2000 to 2009-10 period, but more steadily (Figure 1). Estimates of total consumption of TPDS grains by all households are only available for three years (1999-2000, 2004-05 and 2007-08) and show an increase from 12.3 to 18.9 million tonnes over this period, or by 53.4% (Table 4). (A trend estimate for the whole period has to await the publication of the 2009-10 NSS household food expenditure survey.)

Proposed Reforms of the TPDS and Budget Costs: The costs for the reforms of the TPDS aimed at reducing leakages and enhancing efficiency, discussed above, may be covered if they succeed in substantially stifling waste, leakages and diversion of TPDS grains, but this is yet an unknown. What will be costly, though, is the policy of keeping the CTs fixed in nominal terms if food price inflation – and the minimum support prices (MSPs) – continues at the recent pace. The proposed reform with the largest budget burden, however, would the substantial increase in the eligibility to purchase subsidised grains, as proposed in the 2011 BPL guidelines. The GOI has yet to publicise an estimate of the budget required for the PDS when the new guidelines are applied.

A few attempts have been made to estimate the costs of semi-universal PDS programmes with slightly broader coverage than envisaged in the new BPL guidelines. The estimates of the subsidy cost derived by Khera (2009) range from Rs 820 billion to Rs 1,150 billion, contingent on the amount of grains allowed per household and month. In Himanshu and Sen’s (2011) proposed scheme, there would be three constituencies entitled to purchase subsidised grains at different prices. Based on projected demand for PDS grains at these prices, the authors estimate the annual outgo subsidy required at Rs 794 billion. The lowest of these pure subsidy estimates could be financed within the current overall food subsidy budget, but would leave nothing for other programmes. Moreover, none of the estimates include the running costs of an enlarged semi-universal PDS.

In 2004-05, the subsidy embedded in the total consumption of the TPDS grains purchased by all household categories was about Rs 55 billion (13.5 million tonnes and a weighted average subsidy of Rs 4.1/kg; see Tables 1 and 5). With a TPDS budget of about Rs 175 billion in that year, the pure subsidy accounted for some 31%, while the remaining 69% covered operation costs, waste and leakages.

Khera (2009) and Himanshu and Sen (2011) refrain from providing an estimate of the total budget requirements for their proposed semi-universal PDS. The latter are convinced though that “the more universal the PDS is, the less likely it is to suffer from leakages” (2011: 42, italics in original). They find support for this claim in the fact that across states, leakages are the lowest in the states with the highest eligibility rates and the largest TPDS subsidies. However, even if the pure subsidy component in their PDS can be increased from 31% in 2004-05 to 50%, the total budget burden would be twice their estimated Rs 794 billion, or close to Rs 1,600 billion. This would increase the total costs of the programme from about 1% of NNP presently to 2%.

Himanshu and Sen estimate that the demand for PDS grains in their suggested scheme will be between 60 and 100 million tonnes per year and similar volumes are projected in other proposals for a semi-universal PDS. These quantities are the equivalent of between two and three times the average annual offtake for the TPDS in the 2004-05 to 2009-10 period (Department of Food and Public Distribution 2010). The upper-end estimate corresponds to about half the annual rice and wheat production in India and is equal to all grains that are marketed, and about half of what is produced (Ramawami and Balakrishnan 2002). None of the proponents of semi-universal food subsidy schemes expect any serious market disruptions arising from such state monopsony.

CTs and Budget Costs: An obvious ensuing question is, first, whether a doubling of the food subsidy budget would be
acceptable – a political question that can be left aside here. A second question, addressed here, is whether better outcomes can be accomplished in an alternative way at considerably lower costs, through a differentiated and targeted CT scheme. In the following, a budget for such a scheme, aimed at covering two-thirds of Indian households, will be simulated. The size of the per household transfer will be set at levels that ensure that the scheme can be financed within the budget for the TPDS as of 2010-11.

The suggested differentiation of the transfers to households that meet the first, second and third inclusion criteria is presented in Table 9, column [1] and range from Rs 2,000 to Rs 6,000 per household and year. In column [2], the estimated percentages of households who fulfil the three different combinations of criteria are given. (These estimates are from 2004-05 and are assumed to carry over to 2009-10.) Applying the estimated shares in column [2], the numbers of households fulfilling the different combinations of criteria in 2009-10 are calculated in column [3]. Adding up, about 155 out of a total of 240 million households, or almost two-thirds, would qualify for CT eligibility. This share is considerably larger than the 46% estimate in the 2011 BPL guidelines, slightly smaller than the expected coverage in the semi-universal PDS proposals, but much higher than in either the Mexican Oportunidades or the Brazilian Bolsa Familia (Hanlon et al 2010).

Table 9: Estimated Budget Cost of Targeted CT with Differentiated Transfers according to Inclusion Criteria Met, Rural and Urban Areas Combined (2009-10)

<table>
<thead>
<tr>
<th>Household Category</th>
<th>Distribution of Household (Year)</th>
<th>Estimated Number of Household (million)</th>
<th>Total CT Per HH Category (Rs/billion)</th>
<th>CT per Person/ Month (Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All households*</td>
<td>100</td>
<td>240</td>
<td>(1) [1]</td>
<td>([1][i][j])</td>
</tr>
<tr>
<td>1 criterion</td>
<td>2,000</td>
<td>36.4</td>
<td>874</td>
<td>174.8</td>
</tr>
<tr>
<td>2 criteria</td>
<td>4,000</td>
<td>22.3</td>
<td>53.5</td>
<td>214</td>
</tr>
<tr>
<td>3 criteria</td>
<td>6,000</td>
<td>5.8</td>
<td>13.9</td>
<td>83.4</td>
</tr>
<tr>
<td>Any criteria (sum)</td>
<td>64.5</td>
<td>154.8</td>
<td>472.2</td>
<td></td>
</tr>
<tr>
<td>Weighted average CT</td>
<td></td>
<td></td>
<td>52</td>
<td></td>
</tr>
</tbody>
</table>

* Approximate total number of households derived from a population of 1,210 million as estimated in the 2009-10 Census. The estimated five persons in average household (column [5]). Source: Calculations as explained in text.

In column [4], the per household CTs in the three different inclusion categories have been multiplied by the estimated number of qualifying households so as to derive an estimate of the total cost of the transfers (in Rs billion). The total for the three categories sums up to Rs 472 billion, well within the 2010-11 TPDS budget of Rs 632 billion, leaving a balance of approximately Rs 160 billion for operation costs (25% of the total). On a per person basis, the CTs in this scenario would range from a minimum of Rs 33 per month for households meeting one criterion to Rs 100 for the supposedly poorest households who meet all three criteria (Table 9, column [5]). Compared to the meagre transfer to the average poor household embedded in the TPDS (Table 2), these sums are huge.

According to recently released data on household per capita consumption expenditures in 2009-10, the average MPCE for households in the two poorest quintiles (40% poorest) in rural and urban areas amounted to Rs 618 and Rs 910, respectively (NSS 2011). For the poorest decile, the corresponding MPCE were Rs 452 and Rs 599. A CT of Rs 100 per person and month to the poorest of the poor would raise their average disposable income by 22% (rural) and 17% (urban). A difficult question remains: what level of authority and who should determine eligibility for CTs? The most reliable solution would be if the central authority responsible for issuing the biometric identity cards registers the three inclusion criteria. This is obviously already in the plans for the new BPL census. The computerised enumeration for the BPL lists to be produced over the second half of 2011, will be matched to the national population register data and will also be UID compatible. However, households’ circumstances change over time and so can possible eligibility for CT receipts. The national population data, updated once a decade only, will become obsolete as time goes by. Population Censuses must thus be held more frequently, at least every fifth year. An alternative is to involve local authorities, but to leave decision-making mainly in their hands would impose a risk that corrupt local elites capture the scheme in many places.

The Case for – and against – Cash Transfers

The Case for CTs: The main advantages with the differentiated CT scheme suggested here are that (1) about two-thirds of all households can be covered, (2) the transfers to the poorest are huge compared to the actual transfers embedded in the TPDS, (3) the impact on income distribution is progressive, (4) the risk of large exclusion errors is eliminated, (5) the scope for corruption and fraud is diminished, (6) operational costs are slashed, (7) no poverty lines, (8) no central caps are required, (9) objections from the one-third of households left out would probably be muted as they may prefer not to be branded as poor, and (10) the overall budget can be held at the level of the present TPDS.

To this, one may add that CT schemes of the type Mexico (Oportunidades) and Brazil (Bolsa Familia) have are among the very few large-scale anti-poverty programmes that have proved efficient and effective according to a number of mega-evaluations, and are now spreading like a wildfire across the world (Hanlon et al 2010).

The Case against CTs: Some objections to CTs are not primarily against money transfers as such, but rather to the introduction of digitised UID lists on the ground that the registration will be misused by authorities and infringe on people’s integrity (Drèze 2010). However, if almost complete coverage of the UID is accomplished in a few years time, the question is why not use the then existing technology for transferring cash to poor households rather than providing subsidised food in a system that has proved extremely costly and inefficient in all its dimensions?

The most articulate opponents to a CT scheme, who would rather see a reformed and (semi-) universal food subsidy system, explicitly argue that the elimination of exclusion errors is their overriding objective. They are not convinced that UID coverage will become universal (or even close to it). They fear
that those who, for various reasons, are left out will not have access to many public services (Khera 2009; Drèze 2010; Drèze and Khera 2010; Himanshu and Sen 2011) – including potential cash transfers. The concerns about exclusion errors cannot be dismissed, and even if full UID coverage is accomplished, exclusion can occur due to faulty targeting for eligibility. Evaluations of the pre-1997 PDS, and more recently from Tamil Nadu, find exclusion errors occur even in universal systems. However, the differentiated CT suggested above would include two-thirds of all Indian households; that the one-third of households left out would include many of the desperately poor is difficult to imagine.

Another objection is that “it is not clear how transfers of cash to the poor would allow them to buy grains from the open market in times of steep inflation” (Shah 2008: 78). The solution is to index the transfers to the real price of basic food items, which is technically simple, but politically sensitive.

Other sceptics have argued that providing cash rather than tying the transfer to food subsidies may lead to “unwarranted” consumption, such as tobacco and alcohol. This may well be the case, but ignores the possibility for fungibility in household consumption in the present system. Subsidised foodgrains means that households have the effortless and costless option to cut down on open-market purchases of grains and use the money thus freed to buy whatever they prefer.18

The most frequent argument against a CT scheme was valid till a few years back, but no longer. It was argued that in order to receive a transfer, households need not only a unique digitised identity card, but also a bank or a post office account, which about half the rural population in India lacks, according to the National Bank for Agriculture and Rural Development (NABARD). However, such accounts are no longer necessary for being able to receive cash. With modern technology, money can be transferred through ordinary mobile phones. The most successful and well-known such scheme is the Kenyan m-PESA (mobile money in Swahili), which can be used for a variety of transactions. It was started in 2007 and as of April 2011, had 14 million subscriber (more than half the adult population).19

Similar schemes are under implementation in many countries, including India.

An Indian operator, Little World, has recently started a branchless micro-banking system based on biometric identification that can be used for cash disbursals of social security pensions, wages under the Mahatma Gandhi National Rural Employment Guarantee Act (NREGA), housing grants, domestic remittances by migrant labourers and a host of other services. So far the scheme covers only three million households (in 20,000 villages in 18 states), but 25,000 new accounts are opened each day.20

It is hard to believe that India, with its world-class software industry, will not be able to find the technical solutions required for distributing cash electronically to poor households in a CT scheme. In a few years time, it seems that almost every adult Indian will possess a mobile phone. As of September 2011, the total number of wireless subscribers had reached 874 million, reflecting a 25% increase over one year, according to the Telecom Regulatory Authority of India’s latest Indian Telecom Services Performance Indicators from 9 January 2012.21 For Indian households not possessing a mobile phone, the incentive to buy one would be strong for those found eligible for a cash transfer.22

**Cash Transfers in India to Date:** The case for replacing subsidies with CTs has gained ground in India generally. Most notably, in the mid-2000s, NREGA replaced a plethora of earlier work-for-food schemes with cash for work. The GOI has announced that subsidies for fertiliser and kerosene will be replaced by CTs (Kapur 2011).

A member of the Planning Commission has published a paper arguing for replacing five subsidy schemes with CTs (Mehrotra 2010). State governments in Delhi, Haryana and Uttar Pradesh have submitted proposals for substituting food subsidies with cash transfers on a pilot basis. Moreover, state governments have increasingly adopted conditional CT schemes aimed chiefly at keeping girls in school and unmarried before the age of 18, but also for providing incentives for mothers and children to attend health clinics (UNDP 2009).

Other, unconditional CT schemes in India, are targeted to the old, widows and disabled; these schemes are still small, but efficient according to a recent evaluation (Dutta et al 2010). The Chief Economist at the Ministry of Finance has given the nod for replacing food subsidies with cash or food coupons, although with some reservations (Basu 2011). The GOI and the Planning Commission seem split, however, and have yet to commit either to a CT scheme or to a thoroughly reformed PDS.

**Concluding Remarks and Caveats**

In the attempt to put numbers on the benefits accruing to poor households from the CT scheme proposed here, no general equilibrium effects have been taken into account, only direct ones. There are many conceivable indirect effects. Concerns are always raised that providing unconditional cash (or subsidised food) to poor households will lead to reduced labour supply. That is conceivable, but on the other hand, it is well established that higher incomes lead to improved diet quality in India, especially intake of proteins and micronutrients, which boosts labour productivity significantly (Bhargava 2008).

Another concern is that higher incomes of the poor will increase demand for food and hike up food prices (Ramaswami and Balakrishnan 2002). However, the procurement of about half of the total marketed Indian grain production by the FCI at MSPs, well above farm-gate prices, has most certainly driven up market retail prices (Basu 2011); scrapping this system should hence lower prices. It may also be that cash transfers have (positive) externalities in that ineligible households benefit as well through various channels. A study of the Mexican Oportunidades has found evidence of this (Angelucci and De Giorgi 2009).

Even though no attempt to capture indirect effects and externalities has been made in this paper, we can conclude a priori that the conceivable indirect effects point in different directions. Moreover, estimating the net effect in the Indian
context would not be possible as no comprehensive CT scheme exists. We hence have to rely on findings from other countries which have had such schemes in operation for some time. It is then encouraging to find that evaluations and reviews of cash transfers worldwide find the effects on outcome variables to be overwhelmingly positive and with few negative side-effects (for example, Hanlon et al 2010, Bhutta et al 2008; also see Coady et al 2004 and Behrman et al 2004).

A comprehensive Indian CT scheme is unlikely to be the magic bullet that lifts most poor households out of poverty on a self-sustaining basis, although it will be helpful as at least part of the cash is often invested by the recipients (Hanlon et al 2010). The only solution to the long-term poverty problem is that the labour productivity of the working poor increases. Illiterate and poor people have a high workforce participation rate (Table 8), but are poor because they earn very little, and they earn little because their productivity is very low, given levels of human capital and command of other factors of production (land, capital and technology). This is a long-term enigma beyond the scope of the present study.

A switch from the TPDS to a targeted and differentiated all-India CT scheme, based on biometric UID cards, cannot take place before these have been issued to all households, or to the great majority. This will take time, perhaps several years, and meanwhile many pilot CT schemes should be tried out in the states and districts where the issuing of UID cards has advanced the most, a process that has already been initiated.

It is then important that possibilities for strict evaluation are built into pilot studies already in the design stage. These should include experimentation with different sets of inclusion criteria, methods for determining eligibility and, most important, making possible randomised experiments in order to allow strict evaluation and monitoring of outcomes, and both intended and non-intended responses by recipients. Without such in-built research features, allowing convincing inferences about causality, it will be difficult to evaluate whether CTs will be the superior method for alleviating poverty and malnutrition in India in the medium-term – without compromising long-term growth – that the present author is inclined to expect.

NOTES
1 The Planning Commission (2008) estimates that real wage increases in rural sectors were 17% between 2000-01 and 2004-05, whereas salary increases would mean that real average MPECS were lower, and that the poverty prevalence in all-India in 2004-05 was 30.6% rather than the official 27.5%, and also that the decline since 1993-94 was 5.4 rather than 8.5 percentage points.
2 The Planning Commission (2008) estimates the TPDS subsidy to average poor households holding BPL cards at Rs 81.5 per month in 2004-05. This estimate is higher than the estimate presented above at Rs 50, which refers to the average for all poor households, with and without BPL or AAY cards.
3 The finding is puzzling, but an explanation could be that among all poor households, those who have been issued BPL or AAY cards are even poorer than those lacking these cards. It may also be that the cardholders cut down on cereal purchases and use the income transfer embedded in the subsidised grains to buy more other food items. Further study on the basis of unit-root data may resolve the puzzle. It is interesting though that a sample study of 400 households in Rajasthan came to the same conclusion (Khera 2008).
4 The TPDS has been claimed before to be a very costly way of transferring incomes to the poor (Planning Commission 2008, Kapur et al 2008, Nilekan 2009, Panagariya 2008). On the basis of official data for 2000-01, Panagariya claims that the operational costs eat up 96.3% of the budget and that only 3.7% ends up as an income transfer to the poor. A check of what Panagariya calls his “back-of-the-envelope” estimates suggests a calculation error. He asserts that the subsidy (in 2000-01) was Rs 415 per tonne, which is incorrect. The Rs 415 subsidy was per quintal (100 kg) of grains, not tonnes. Correcting for this misunderstanding would mean the share accruing as income support for the poor households should be 10 times higher, i.e., 37% (according to Panagariya’s own estimation model).
5 Khera (2011a) argues that the NSS consumption estimates should be considered “upper-bound” estimates as the recall method used tends to lead to underestimation. On the other hand, to the extent that underweighting and adulteration of grains in the FPS takes place, consumption is overestimated. Moreover, the oft-takes from the FCI do not include the additional off-takes by state governments. The net effect on leakage is thus uncertain.
6 A regularly updated list of media reports on scams related to the TPDS can be found on (last accessed 12 January 2012): http://www.karmayog.org/publications/distributionsystem/.
7 There are huge differences in leakages across the Indian states. (see Himanshu and Sen 2011 and Khera & Khera 2011). Khera (2011b) argues that the official estimates are likely to be compromised by underestimating the leakage.
8 Re-estimating the “total consumption”, or purchases, by all households of TPDS grains, using the NSSO statistical data set used by the Planning Commission, I arrived at a somewhat smaller number on “total consumption” (12.17 versus 13.53 million tonnes). The discrepancy is probably due to the fact that the Planning Commission calculated purchases by states and then aggregated to the all-India level, while I used the already aggregated data reported in the NSS (2007).
9 The correlation coefficient between monthly consumption and income is low in most specifications applied by Townsend (1995) – around 0.14.
10 For transparency reasons it is important to keep the inclusion criteria small. One may consider adding a few inclusion criteria, such as household heads by single women, an old, or a disabled person. These are, however, already small but reasonably well-functioning programmes aimed at these groups (Dutta et al 2010). To the extent that these are flawed and/ or have an insufficient coverage, improving and extending them seem more straightforward than including them in a CT scheme.
11 These three criteria (or very similar ones) are found in most suggestions for new BPL guidelines, including the 2011 official ones. However, these guidelines all also add a host of additional exclusion and inclusion criteria.
12 To condition the CT to children’s school attendance and medical check-ups, as in Mexico and Brazil, would not work in many parts of India as schools and health clinics are lacking, or are of such dubious quality that it would be meaningless for parents to take the children there (Vyasulu 2010). However, several Indian states already have such schemes, albeit on modest scales (UNDP 2009).
13 The WPI for primary food articles increased by 15.8% in 2010-11 and by a further 9.1% in the first quarter of 2011-12 (Mohanty 2011).
14 According to calculations made by Drèze and Khera (2010), 80% of all households (in rural areas) would meet at least one of their five inclusion criteria and hence qualify for purchasing subsidised grains in their proposed quasi-universal PDS.
15 In an accompanying paper (Svedberg 2010) the effects on poverty will be estimated in more detail, but the completion of that paper has to wait the publication of the detailed results from the NSS survey of the public distribution system and other sources of household consumption, 2009-10.
16 There is a wealth of experiences from 45 developing countries that have CT schemes, but used different methods for determining eligibility criteria (Hanlon et al 2010).
17 See, especially, the compilation conducted by a Lancet team, published as a web appendix to Bhutta et al (2008); also see Coady et al (2004) and Behrman et al (2004).
18 Food coupons (or stamps) have been suggested as an alternative way of supporting the poor and tilting their consumption towards essential goods, such as food (e.g., Basu 2011). This argument also disregards fungibility. The average household in the lowest MPCE decile deciles spends about two-thirds of its expenditure on food and about 30% on cereals (weighted rural-urban) (NSS 2006b). These households already consume about the same quantities of cereals, 0.34 kg/person/day, as the average all-India household, 0.37 kg/person/day (Svedberg 2011, Table 1). Food coupons, allowing them to purchase cereals (or items from a specified list) at little or no cost would not induce them to consume much additional grain. They would rather cut down on their other purchases of grain by about the same quantity as the coupons provide them at lower cost. The
money thus freed can then be used for any purpose, be it more quality food items or alcohol. As there are practically no transaction costs involved in adjusting the consumption basket, there is little difference between providing support in the form of subsidised food, cash or food coupons, when it comes to influencing the end use of the support.

19 This data was obtained from: http://www.sa-
farm.com.co/. For more on M-Pesa, see Jack and Suri (2010).

20 Last accessed 16 January 2012: http://www. littlesworld.com/htmls/awl/ad_smilioni-
mark_v2-2_3-2_09.jpg


22 The mobile network coverage is still not complete in India and the most remote areas will probably not be covered for many years to come. For such areas, special arrangements (as today) are required to reach poor households.

23 Reviews of the CT literature (such as Hanlon et al 2010) show that most of the empirical evidence comes from non peer-reviewed “gray” publications. Among the few empirical studies of cash transfers based on controlled randomised experiments, Duflo (2000) and Angelucci and De Giorgi (2009) stand out. Both are published in the American Economic Review and report positive and large effects of CTs.

REFERENCES


