

# A Case for Reframing the Cash Transfer Debate in India

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Cash transfers are now suggested by many as a silver bullet for addressing the problems that plague India's anti-poverty programmes. This article argues instead for evidence-based policy and informed public debate to clarify the place, prospects and problems of cash transfers in India. By drawing on key empirical findings from academic and grey literature across the world an attempt is made to draw attention to three aspects of cash transfers – design, implementation and impact. The article examines which instruments function the best and for what goals, what the broader context is in which these interventions are embedded, and what the difficulties associated with their implementation are.

I thank Christopher Barrett, Jean Drèze, Reetika Khera, Erin Lentz, Marc Rockmore and Anuja Saurkar for discussions on issues covered in this paper and comments on an earlier draft.

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## 1 Introduction

Recent months have witnessed a spurt in discussions on cash transfers as an instrument for delivering social security in India. The dominant view is represented in a slew of media articles by economists, advocating a transition to cash transfers from existing regimes, be it as a replacement for the public distribution system (PDS) or administered pricing for select fertilisers. These have ranged from casual “proposals” couched in generalities to very specific recommendations. 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.

This article is intended as an intervention that implicitly argues for evidence-based policy and informed public debate to clarify the place, prospects and problems of cash transfers in India. Towards this end, it draws on key empirical findings from academic and grey literature across the world to make a case for reframing discussions on cash transfers in India. While a comprehensive review of literature is beyond its scope, the attempt here is to draw attention to three aspects of cash transfers – design, implementation and impact. Which instruments perform best and for what goals? What is the broader context in which these interventions are embedded? What are the difficulties associated with their implementation?

The canvas of empirical evidence suggests that cash transfers are not appropriate for many goals and that their efficacy is highly context-dependent. Importantly, there is little empirical justification for wholehearted endorsement of cash transfers as substitutes for state provision of services and commodities in the area of

food, nutrition, health and education. Indeed, the remarkable success of cash transfers in these areas has come when they have been used in tandem with extensive in-kind provision by the State, as demand-side interventions to incentivise households. Unconditional cash transfers, such as old age pensions, appear to have positive effects overall. Where transfers in the form of vouchers appear feasible, for example, with fertilisers, they inherit the formidable implementation challenges of other forms of subsidies, often undermining their cost effectiveness.

The rest of the article takes up these issues in detail. Section 2 clarifies the various forms of transfers and the labels used to distinguish them, along with the potential and problems with each of them. Section 3 reviews the evidence on impact and implementation in the context of food and nutrition, health, education and agricultural inputs. Section 4 summarises the findings and concludes the essay.

## 2 The Concept of Cash Transfer and Its Various Forms

Cash transfers describe a class of instruments through which beneficiaries are endowed with purchasing power to acquire specific goods rather than the goods themselves. Specifically, they differ from in-kind transfers where state agencies are directly involved in distribution and sale of a particular commodity or service, usually at less than market price.<sup>1</sup> While cash transfers and in-kind transfers can substitute one another, they typically complement each other so that cash transfers to target populations coexist with and serve as complementary inputs to state provision of commodities or services.

Cash transfers can take different forms. In very simple terms, they can be unconditional or conditional. An unconditional cash transfer to beneficiaries entails no restriction on use; there are no strings attached and beneficiaries are free to decide how they wish to spend it. These transfers can be universal or restricted (or targeted) to a specific sub-population, for example, the poor, elderly, and nursing mothers. Conditional cash transfer (CCT) schemes essentially transfer cash, generally

to target households, contingent on specific behavioural responses on the part of the household. These conditions can stipulate that households make pre-specified investments in the human capital of their children, be employed in public works, use specific healthcare facilities, and so on.

It is useful to note that in-kind transfers too can be unconditional or conditional, and with restrictions on eligibility. For example, distribution of food packets or seeds during humanitarian crises are examples of unrestricted unconditional transfers in crisis-affected areas, whereas conditional in-kind transfers include mid-day meals in schools, food for education and food for work schemes.

There could also be overlapping categories that are best described as “cash-assisted kind” transfers implying a transfer of cash or purchasing power, but one that restricts its use to the purchase of pre-specified commodities or services. In essence, these are in-kind transfers, but mediated via a transfer of an instrument that enables acquiring particular goods or services. For example, in India, some state governments such as Tamil Nadu give free bicycles to girls who complete a particular grade in school (an in-kind transfer). More recently, the Bihar government began providing cash to families to buy the bicycle themselves (a “cash-assisted kind” transfer). Similar to these “cash-assisted kind” transfers are vouchers, coupons or stamps. These are officially authenticated instruments that can be used to purchase fixed quantities of a designated commodity (commodity-based vouchers) or a particular commodity for a fixed amount represented by the voucher (value-based vouchers). Both the commodity and the place of purchase can be restricted, say, to particular types of fertilisers or approved vendors.

Early theoretical work in economics tended to support the view that pure cash transfers are superior. For instance, Thurow (1974) suggested that “while it is not axiomatically true that cash transfers always dominate restricted transfers, the general economic case for cash transfers is strong enough that the burden of proof should always lie on those who advocate restricted transfers”. In the context of a food subsidy, Southworth (1945) suggested that households would spend the same amount of

additional resources on food whether these resources came from food stamps or cash.<sup>2</sup>

Yet, empirical evidence has often defied theoretical predictions. For example, the “cash-out puzzle” shows that there is a higher marginal propensity to consume food with food stamps than with cash income and this has prompted new theoretical work that has sought to address these empirical “anomalies”. The theoretical rationale for unconditional cash transfers is today far more equivocal than the early works suggested. Breunig et al (2004), for instance, theorise that if the goal is to increase expenditure on food, food stamps might be preferable to cash transfers. Mookherjee and Ray (2008) suggest that CCTs are better than unconditional transfers when the objective is to promote investment in human capital.<sup>3</sup>

Theoretical arguments aside, implementing agencies, both international and state institutions, recognise that each type of transfer has its pros and cons and the success of one or the other depends not only on the goals but also on the contexts in which they operate. In other words, whether cash transfers are appropriate and effective is essentially an empirical question (for instance, Farrington et al 2006; Gentilini 2007, 2008; Harvey 2005).

Cash transfers are recognised to be cost-effective since they have lower transaction costs and avoid the problem of having to ship, store, transport and distribute commodities. It also allows the beneficiary freedom to direct the benefit to particular household needs. In the context of food, for instance, this could imply a more diverse diet. Cash is also deemed to have multiplier effects that stimulate the economy and in the context of agricultural inputs, for example, can support the development of input markets. At the same time, these very merits can turn into problems in many contexts. The fungibility of cash implies that beneficiaries might use it in ways that undermine particular goals of the transfer, which resource-constrained governments can ill afford. Also, even as cash can promote local market development, it can also contribute to localised inflation, where markets function poorly to start with. Cash might provoke more household conflict regarding expenditure priorities than might be the case with in-kind assistance.

However, there is evidence that where cash has been specifically targeted at women it gave them greater intra-household control (Adato et al 2003; Attanasio and Lechene 2002; Schady and Rosero 2007).

Further, observers suggest cash transfers can also engender corruption, be prone to elite capture and be held hostage by nepotism. To avoid these, sophisticated tracking and monitoring systems are required (Devereux and Vincent 2010), which increase the costs of administering cash transfers. These collectively suggest that the empirical basis for one form of social assistance or another is both goal and context-dependent. Recognising the contextual dependence of instruments, there is a large literature that develops tools and techniques for contextual analysis to determine appropriate interventions, a field known as response analysis (Barrett et al (2009) and Michelson et al (2011), for instance).

### 3 A Review of Empirical Evidence

This section reviews empirical evidence, in the light of the above, first addressing interventions in the social sector, including food and nutrition, health and education and agricultural inputs.

#### 3.1 Food and Nutrition, Health and Education

There is now fairly consistent evidence internationally to show that in the context of food and nutrition, in-kind transfers not only work but also in many cases do better than cash transfers, while a combination of food and cash might outperform either of these alone.<sup>4</sup> Households do not appear to compensate away from food when there is in-kind provision of food. For example, on school days, the caloric intake of children is higher by 80% of the caloric value of the feeding programme relative to non-school days in the Philippines (Jacoby 2002). In a comparative perspective, that is, food versus cash, Ninno and Dorosh (2003) find that in Bangladesh the marginal propensity to consume (MPC) out of wheat transfers in-kind is significantly higher than the MPC out of cash transfers. It was also found that while food and cash incentives both contribute to a comparable increase in enrolment, cash did not increase a family's food consumption whereas take-home rations

did (Ahmed 2009). A study of the Programa de Apoyo Alimentario (PAL), a food assistance programme for the poor in Mexico (Skoufias et al 2008), offers an example that suggests that in-kind performs comparably to cash transfers in increasing food expenditure.

Conditional in-kind transfers such as mid-day meals in government schools in India are examples of successful in-kind schemes that are known to have had a positive impact on calorie intake, enrolment, attendance and even cognitive skills (Afridi 2010; Drèze and Kingdon 2001; Jayaraman 2008; Singh 2008). When micronutrient supplementation and deworming are included, they have had a non-trivial impact on health as well (Gopaldas 2005). It is difficult to think of a cash transfer scheme that matches this in terms of the combined effects on school attendance, food security, cognitive skills, health, socialisation and promotion of women's employment to run the programme. In Bangladesh's Food for Education (FFE), Ravalland and Wodon (1999) show that an extra 100 kilograms of rice increased probability of enrolment for boys and girls by 0.15.

"Cash-assisted kind" transfers such as food stamps also do better than cash transfers. Barrett (2002) points out that virtually every study on the US Food Stamp Programme finds that food stamps increase household nutrient availability at two to 10 times the rate of a like value of cash income. Participants spend a higher proportion of their benefit on food than they would with an equivalent amount of cash (Hoynes and Schanzenbach 2007, for instance). Converting food stamps into cash transfers would reduce food spending by 18 to 28 cents per dollar of food stamp benefit (Fraker, Martini and Ohls 1995).

Under inflationary conditions, in-kind transfers or inflation-indexed stamps are superior to cash transfers. For instance, Sri Lanka's experience suggests that unindexed food stamps left the poor with lower consumption of food than with the traditional subsidies (Edirisinghe 1987). Sabates-Wheeler and Devereux (2010) find that food transfers or "cash plus food" packages of the Ethiopian Productive Safety Net Programme are superior to cash transfers alone (since inflation quickly eroded

the quantities cash could buy), enabling higher levels of income growth, livestock accumulation and self-reported food security. Under inflationary conditions, in-kind transfers or commodity vouchers denominated in quantity offer beneficiaries the best protection.

In the context of health interventions, there are several situations where in-kind transfers are the most appropriate (Das et al 2005). For example, providing insecticide-treated bed nets decreased the incidence of malaria in Western Kenya where equivalent cash transfers would have been spent on clothing and food (Nahlen et al 2003; Alaii et al 2003) and school-based deworming programmes (Miguel and Kremer 2004) in the same country had a huge impact on attendance. A small increase in the price of pills led to an 80% decline in their use, suggesting that price sensitivity might curtail optimal use. Further, Hoffman (2009) and Hoffman et al (2009) show, for instance, that free distribution of insecticide-treated nets does a better job of getting vulnerable people, in this case, children, under the nets than do "cash-assisted kind transfers" with the additional benefit of low resale with free distribution of the nets. In fact, in many developing country contexts, public provision is essential and critical, given pervasive market failures. Another example of "cash-assisted kind" transfer are the food and medicine vouchers in Pakistan given as incentives for immunisation; this saw immunisation coverage at 18 weeks of age increase two-fold in the incentive cohort compared to the no-incentive cohort (Chandir et al 2010).

The case for cash transfers is usually articulated in terms of cost effectiveness or some measure of benefit-cost ratio rather than mere impact on food expenditures per unit of transfer. Studies documenting these are however few and far between. In-kind are expensive and can lead to deadweight loss. In Jamaica's Nutribun and Milk programme, Jacoby (1997) estimates per capita benefit to be less than half the per capita cost. However, this can be true of stamps schemes and cash transfers as well. Edirisinghe (1987) points out that while the transition to food stamps in Sri Lanka in 1979 resulted in a relative decline in the food subsidy bill as a proportion of the budget expenditure and national income,

even in its unindexed form the cost of transfers escalated to 500% of the amount households spent on acquiring food calories with the transfer.

When markets are weak and cash transfers offer protection against inflation, the cost of transfers increase substantially, undermining any cost advantage that cash transfers have (Kebede 2006). In general, cash only makes sense where markets are deep and function effectively (Harvey 2005; Gelan 2006; Kebede 2006). Where they do not, there is a danger that injection of cash leaves beneficiaries worse off, owing to lack of access to food and also because of local inflationary pressures, as in Ethiopia (Kebede 2006; Gelan 2006).

### Where Do Unconditional Cash Transfers Work?

Unconditional cash transfers have been typically, but not always, intended as safety net interventions (for the elderly, for instance). They have had positive spillover effects although there is not much evidence on the relative performance of these vis-à-vis conditional transfers, vouchers and in-kind provision, or on their long-term effects on poverty and human capital.

Pensions in Namibia and South Africa (Old Age Pension, OAP) have contributed to a reduction in poverty in the short run and enabled beneficiaries cope with the HIV/AIDS epidemic, and have also enabled human capital investments, in grandchildren, for example (Case and Deaton 1998; Samson et al 2004). Evidence on old-age pensions in India also suggests that they offer considerable scope for poverty reduction and do reach the vulnerable aged (Dutta et al 2010; Farrington et al 2006).

In the field of education, there is a view that unconditional cash transfers have little effect on school enrolment or other educational outcomes (Behrman and Knowles 1999, for example). In contrast, however, South Africa's Child Support Grant (CSG) and Malawi's Mchinji Cash Transfer programme saw statistically significant increases in enrolment (Case, Hosegood and Lund 2003; Miller et al 2011) and some effect on attendance and dropout rates in the case of Malawi (Miller et al 2011). Effects on health, however, appear to be less significant.

Across these examples, the major proportion (25% to 70%) of unconditional

transfers was directed to food consumption. The expenditure on basic food items increased in South Africa (both CSG and OAP; Samson et al 2004).<sup>5</sup> In food and nutrition, unconditional transfers are known to improve dietary diversity, for example in Malawi and Zambia, and child nutritional status, in South Africa and Malawi, when cash is provided when children are very young (Adato and Bassett 2009; Miller et al 2011; Aguero, Carter and Woolard 2006), and with the OAP, on girls when the pension is received by a woman (Duflo 2003).

In general, unconditional transfers work well for social security pensions, and the like. In most other cases where there are specific goals such as promoting micronutrient intake, unconditional cash transfers only make sense if the beneficiaries are sure to make the "right choice" but do not have the means to do it. Often, unconditional cash transfers have been accompanied by education programmes, sensitising beneficiaries to the intent of the transfer, so that these are channelled in desirable ways (as in Ecuador's Bono de Desarrollo Humano, or human development bond, before conditionalities were introduced). Even in these cases, unconditional transfers that are restricted or targeted imply the possibility of misidentification and of excluding those who might need it most.

### Conditional Cash Transfers in Context

While unconditional cash transfers do have positive spillovers, in many circumstances conditionality is critical for achieving specific goals. For example, when there are positive externalities associated with a household decision, the household's optimal investment might result in underinvestment relative to the societal optimum. CCT serve to reconcile the two (Das et al 2005). There is some evidence that without conditionalities an equivalent amount of cash would not yield the same result (as Bourguignon et al 2002 argue for Brazil's Bolsa Escola, or child allowance).

Beneficiaries of CCTs make pre-specified investments in the human capital of their children. Health and nutrition conditions generally require periodic check-ups, growth monitoring, and vaccinations for children less than five years of age, micronutrient

supplementation and perinatal care for mothers and attendance by mothers at periodic health information talks. Education conditions usually include school enrolment, attendance on 80% to 85% of school days, and occasionally some measure of performance. Most CCT programmes transfer the money to the mother of the household or to the student in some circumstances (Fizsbein et al 2009). The monthly transfers range from 4% to 30% of household expenditure and an institutional apparatus monitors compliance with conditionalities, both being critical aspects of the design.

The first generation of CCTs addressed health and education in Latin America in the 1990s. Examples include the Oportunidades (health and education programme, Mexico), the Bolsa Familia (family allowance, Brazil), Bono de Desarrollo Humano (Ecuador), Familias en Accion (families in action, Colombia), PRAF (family allowance programme, Honduras), PATH (Programme of Advancement through Health and Education, Jamaica), and the short-lived Red de Proteccion Social (RPS, social protection programme, Nicaragua), among others. The second in south-east and south Asia have been directed primarily to schooling and maternal health (Sri Lanka's Samruddhi and India's Janani Suraksha Yojana (JSY)). Recent initiatives include pilot programmes in many countries in sub-Saharan Africa.

Evaluations suggest that CCTs in Latin America have had remarkable successes on very many counts, most notably on school enrolment and retention.<sup>6</sup> This is true also of the Female Stipend Programme in Bangladesh where each additional year of participation in the programme leads to an increase in girls' enrolment by 8% (Khandker et al 2003), and of Cambodia's Girls Scholarship Programme (Filmer and Schady 2006).

While Mexico's Progresa (child and women welfare programme) and Nicaragua's RPS are associated with significant improvements in child height, PRAF in Honduras and Bolsa Alimentacao (nutrition allowance) in Brazil have essentially no effects on pre-school nutritional status. Generally, CCT programmes have significantly improved child anthropometry but have had very little impact on micronutrient status. Improvements in iron status are

observed in Mexico but these are not found in Honduras or Nicaragua (Hoddinott and Bassett 2008). Nevertheless, CCTs have had positive impacts on outcomes that contribute to improved nutrition (Leroy et al 2009).

Many CCTs are meant primarily to incentivise use of health services in Bangladesh, Indonesia, Nepal, Sri Lanka, Malawi, and in Latin America. The evidence is thin, but several well-designed studies for Mexico, Colombia, Nicaragua and Malawi strongly suggest that they do increase use of preventive services, but it is not always clear if they have led to improvements in health outcomes or whether their effects are generalisable across settings (Lim et al 2010). There is some evidence of better child nutrition indicators for Sri Lanka's Samruddhi participants and reduction in neo and perinatal deaths in India's JSY (Himaz 2008; Lim et al 2010).

Overall, the evidence on CCTs indicates increased service utilisation (that is, school enrolment and healthcare use), but mixed impacts on final outcomes, such as test scores, illness prevalence and nutritional status (Bassett 2008). This is an important aspect. Even as the Latin American experience makes a strong case for CCTs elsewhere, it is critical to understand the larger context of their success.

First, CCTs have typically complemented state provision. Indeed, the successful CCTs in Latin America have often mandated conditionalities that involve use of state-provided health and nutrition services.<sup>7</sup> As Fizsbein et al (2009) point out, a majority of existing CCTs structured conditionalities around the use of government-managed facilities (schools and clinics).<sup>8</sup> In particular, before introducing CCTs, and contemporaneously, extensive efforts were made by these countries to expand the facilities so as to provide the preconditions for implementation. In this context, most studies that evaluate CCTs compare participants (treated) with non-participants (control) and do not attempt to disentangle the effects of the cash transfer from the in-kind transfers that conditionalities might entail. For instance, Behrman and Hoddinott (2005) find that Progresa beneficiaries improved with CCT and nutritional supplements. In Mexico, children receiving both the cash

transfer and a multi-micronutrient supplement grew about one centimetre more than those receiving neither intervention, but it has not been possible to disentangle the effects of the two interventions.<sup>9</sup>

In that sense, the success of CCTs is a verdict not so much on cash transfers as a standalone intervention but as a complementary input and it should be recognised as such (Bassett 2008). It is not coincidental, either, that Progresa in Mexico and Bolsa Familia in Brazil were rolled out in communities that had adequate access to services and would hence make the fulfilment of conditionalities feasible. Relatedly, if the success of CCTs is predicated on the availability of services in the first place, their replicability and scalability to include marginal settings is questionable. This is especially critical for health (Lagarde et al 2009). There is a risk that the neediest household may not be able to participate if compliance is too costly, for example, if transportation costs are too high, schools and clinics too far away, or opportunities costs of labour too great (Bassett 2008).<sup>10</sup> Indeed with many CCTs, low participation and poor uptake have been problems, as with Nepal's National Incentive Programme to Promote Safe Delivery (Powell-Jackson et al 2009) and India's JSY (Lim et al 2010). This is important not only for CCTs but also for "cash-assisted in-kind transfer", which assumes availability of the commodity or service that constitutes the condition, and might even restrict the positive spillover impacts from unconditional transfers such as pensions.

Targeting and identification of beneficiaries for CCTs are significant problems and there might be a trade-off between increasing efficiency and the redistributive impact of such transfers (Das et al 2005).<sup>11</sup> In India, for instance, an assessment of the JSY, a CCT to promote institutional deliveries, suggests that it did have a significant effect on in-facility births, reduced perinatal deaths by about four and neonatal deaths by 2.4 per 1,000. Yet, the poorest and least educated women were less likely to benefit from the programme. Extra conditions on who can get the money are often based on income (Bosa Escola, Brazil), landownership and employment (FFE, Bangladesh). The problem of identification remains in all these cases. Galasso and

Ravallion (2004) show that the difference in receipts between the rich and the poor in the Bangladesh's FFE programme was marginal.

Market segmentation is often proposed as a way to achieve both equity and efficiency (Das et al 2005) so that the non-poor self-select out of the programme. This would entail conditions such as attendance in government schools or visits to government health centres, where the non-poor would presumably opt for better quality service in the private sector. However, if the quality of government services is poor or there is no access to higher-level services, households that comply with programme conditionalities may end up being worse off (Bassett 2008). There is also some evidence that cash transfers are associated with diminishing marginal returns (Filmer and Schady 2009, for instance, for enrolment impact in Cambodia). Not only is the transfer size critical, there might also be limits to its ability to influence household behaviour.

Finally, although there is less evidence of this aspect, applying conditionalities can be an expensive process vulnerable to manipulation. Verifying compliance accounted for 2% to 24% of total administrative costs (excluding transfers) in Mexico (Progresa), Honduras (PRAF II), and Nicaragua (RPS pilot) (Caldés and Maluccio 2005; Caldés et al 2006). In Zambia, it was 73% of the cost of transfers (Chiwela 2010). Compliance verification can only be as efficient and foolproof as the administrative capacity of the implementing agency and there is a trade-off between reducing monitoring costs and cost effectiveness (Handa and Davis 2006; Adato and Bassett 2009).

### 3.2 Agricultural Inputs: Fertilisers and Seeds

Experiments involving transfers for agricultural inputs have been fewer and have invariably involved distribution of fertiliser or seed vouchers to "target" farmers. Most of these examples are from sub-Saharan Africa, where these "smart subsidies" were established in a context of high fertiliser and food prices and where the parastatal control of input distribution that had prevailed in the 1970s and 1980s had been dismantled to allow private sector participation in input markets.<sup>12</sup> The best-known examples are from Malawi, experimenting

with seed and fertiliser vouchers from 2005 to 2007, and Ghana (2007-08, 2008-09). Both programmes were designed initially to be temporary. Several other countries such as Nigeria (2009), Zambia (2009), Tanzania (2008), Mozambique (2002) and Kenya now have their own fertiliser voucher programmes.

In general, it has never been entirely clear if the traditional forms of input subsidies in Africa led to increased fertiliser use. In some countries, the five-year average before and after subsidy removal and devaluation resulted in sharp reductions of 25% to 40% in fertiliser use (Cameroon, Ghana, Nigeria, Senegal and Tanzania), whereas in other countries fertiliser use actually increased 14% to 500% (Benin, Madagascar, Mali and Togo) (Minot and Benson 2009).

In an experimental study in Kenya to study adoption of fertilisers, there was some evidence that vouchers could affect fertiliser use (Duflo et al 2009). In reality, however, there is a dearth of evidence on the effect of vouchers on fertiliser use. Malawi's bumper crop in maize and subsequent self-sufficiency is often attributed to fertiliser vouchers, although in the absence of a rigorous evaluation it has not been possible to make causative links (Dorward et al 2008). The same is generally true of seed vouchers as well.

As Minot and Benson (2009) point out, fertiliser voucher schemes are not appropriate or cost-effective in all situations and it is important to clarify the conditions under which these make sense. Little is known on whether the benefit-cost ratios justify voucher programmes and whether they are fiscally sustainable. An evaluation of the Malawi's Agriculture Infrastructure Support Project (AISP), for instance, estimated that the benefits in terms of additional maize production were between 76% and 136% of the costs, leaving it ambiguous whether the programme can be justified on efficiency grounds (Dorward et al 2008). The value of these fertiliser transfers to beneficiaries is typically highly heterogeneous across farmers, varying with soil quality and plot characteristics, often with a regressive impact so that better-off farmers benefit more than worse-off farmers do, since the former tend to have better plots, more skill and access to complementary inputs. Marenya

and Barrett (2009a) show that the benefit-cost ratio is commonly less than one when fertiliser coupons, free distribution or heavily discounted starter packs are directed only to the poor. Marenya and Barrett (2009b) emphasise that complementary improvements in the biophysical conditions that affect demand for fertiliser are critical to achieve the goals of transfers in cash or in kind. Malawi's experience also suggests that when fertiliser prices rose, the costs of the programme rose beyond expectations, since the voucher value had to be increased to protect the quantity of fertiliser entitlement. So the supposed cost-effectiveness of these "smart subsidies" came into serious question.

### Design and Targeting

Getting the design and targeting it right appear to be the greatest challenges. The difficulty of targeting or the interference of political processes in the distribution of vouchers implies ambiguity with respect to the equity implications of these vouchers. In most of the voucher programmes, identification of beneficiaries either was a challenge or arbitrary. In Malawi, an evaluation of the distribution of vouchers, which relied on community-based targeting using poverty criteria, found that the beneficiaries were no poorer on average than non-beneficiaries (Minot and Benson 2009). Similar difficulties are apparent with seed vouchers as well, where market segmentation strategies failed to achieve equitable distribution of vouchers (De Groote et al 2009). Banful (2010) finds that the distribution of fertiliser vouchers in Ghana was politicised with the ruling party picking regions to bolster political support rather than based on poverty, population size or agro-ecological characteristics.

There is also documented evidence of leakage (Mangisoni et al 2007 for Malawi, Mozambique and Zambia). A secondary market for vouchers invariably developed. While this undermined the goal of making fertiliser available at affordable rates to small holders because the vouchers were traded away to possible non-beneficiaries, this was not necessarily a problem in itself viewed from the perspective of welfare consequences. In other cases, farmers were known to use fertiliser vouchers to purchase other items from input dealers such as

weedicides and so on, leading to a diversion of benefits away from the intended use.

The African experience with vouchers shows that there is immense scope for fraud (Mangisoni et al 2007; Tambulasi 2009; Banful 2010). Private dealers were able to print fake coupons. In Malawi, an organised crime-corruption nexus evolved around coupon fraud that included workers at coupon printers, authorities at various levels, and government officials (Tambulasi 2009). While these issues can be solved to some extent with technologically sophisticated security features, the issue of coupon distribution is still amenable to political manipulation.

Although in principle voucher systems ought to be less likely to have delays than in-kind distribution, this has been an important issue in Ghana and Malawi. In Mali too implementation problems meant that suppliers were not paid for more than a year after fertiliser sales to farmers against voucher systems. It was also found that poor quality fertiliser and fake brands were more likely to be passed on to voucher programme participants than others, although there is no discussion of why this might have happened (for instance, Mangisoni et al 2007; Liverpool-Tasie et al 2010 for Nigeria).

One of the anticipated advantages of "smart subsidies" in several African countries that had a parastatal monopoly on fertiliser distribution was that these would foster development of private markets. But when vouchers restricted beneficiaries' purchases to parastatals, a market displacement effect saw farmers switch from private dealers to parastatals, affecting small-scale private input dealers. In its initial form, it was observed in 2006-07 in Ghana that between 30% and 40% of the fertiliser sales under the voucher system represented a switch and not increased consumption of fertilisers as the voucher was designed to do (Banful 2010). For the same reason, direct distribution of seeds is regarded as inimical to market development (Mangisoni et al 2007). Findings from Malawi and Zambia indicate that an additional kilo of fertiliser distributed under the subsidy programme adds only 0.5 kg to 0.8 kg to the amount of fertiliser used by farmers (implying a displacement rate of 20% to 50%) and that crowding out is lower when the subsidy is targeted to relatively

poor households than when targeted to non-poor farmers (Dorward et al 2008; Ricker-Gilbert and Jayne 2009). Where vouchers are widely redeemable, so that they can be encashed with private dealers, fertiliser vouchers, by assuring a margin for small input dealers, fostered their development or at least did not hamper it. There is, however, no evidence if the private sector was responsive to the incentives produced by voucher circulation across regions.

### 4 Concluding Remarks

This article reviewed select empirical evidence from across the world on different kinds of transfers. There is broad agreement that the relative efficacy of cash transfers, in whatever form, is highly context dependent. In-kind transfers make sense for a large class of food and health-related interventions. There also appears scope to use "cash-assisted kind" transfers for agricultural inputs, such as fertilisers, in the form of vouchers. However, it is evident that these inherit the problems of targeting and corruption associated with traditional forms of subsidisation. Tackling these would be crucial if they are to both achieve their goals and remain cost-effective.

The strongest case for cash transfers appears to be for social protection of the elderly or as supplementary income to support children. The clearest evidence of benefits from cash transfers pertains to the field of education and access to health services, especially when these are associated with conditionalities. Most of these remarkable successes have been in contexts where there is extensive public provisioning of services, so that CCTs have been designed as demand-side incentives for human capital investment, complementing supply-side, public provisioning of services. Brazil's Bolsa Familia, for instance, was explicitly linked to a rights-based Zero Hunger Programme, which included expansion of school meal programmes, people's hotels, food pantries and workers' meals programmes, among others. It would be erroneous to use the success of CCTs in such contexts to make a case for cash transfers replacing existing supply-side initiatives in India. If anything, experience elsewhere in the world offers cautionary tales that advance the case for treating cash transfers as part of a menu of options, if at

all, and as complementary demand-side interventions, and nothing beyond.

Currently, the discussion on cash transfers in India stands polarised, rather unnaturally, between proponents and opponents of cash transfers. It would make sense to redraw the contours of our contentions by explicitly recognising that both cash and in-kind transfers can take many, often overlapping, forms, and that it does not make sense to speak of cash transfers in simplistic terms. It is also important to recognise that those who stand opposed to cash transfers in food-related schemes do support and recognise the importance of certain cash transfers such as social security pensions and maternity entitlements. The middle ground, where cash transfers are seen to reinforce supply-side initiatives, offers the richest possibilities for policy in India. A reframing of the cash transfer debate in India is essential so as not to undermine the promise of such a middle ground.

## NOTES

[The works cited are selected to highlight particular points and are not necessarily representative of the entire body of research. More systematic and comprehensive reviews of cash transfers, especially CCTs, are found in Adato and Bassett (2009), Bassett (2008) and Hoddinott and Bassett (2008) for child nutrition, Lagarde et al (2009) for health, Parker et al (2007) and Slavin (2010) for education, and in Morley and Coady (2003), Milazzo (2009), Adato and Hoddinott (2010) and Fiszbein et al (2009).]

- 1 These are assumed to differ from pure price-based subsidies that mandate less than market prices, but with private provisioning of the subsidised good or service (as with fertilisers in India).
- 2 This would hold whenever the transfer is smaller than what was consumed before the intervention. If not, in-kind transfers would result in higher expenditure on food.
- 3 Currie and Gahvari (2007) review the theoretical foundations of in-kind and cash transfers. Pinto (2004) demonstrates that a mix of cash and food does best.
- 4 It is important to emphasise that the ordering of the relative superiority of one form of transfer over another could be different depending on the welfare metric used, for example, marginal food expenditure, anthropometric status, mean months of hunger, and so on.
- 5 This is not necessarily inconsistent with the observations made in the previous section on food versus cash, which also suggests increase in food consumption with a cash transfer, but less than would be the case with food stamps.
- 6 This literature is too extensive to allow detailed treatment here. Parker et al (2007) and Slavin (2010) for education and Fiszbein et al (2009), Adato and Bassett (2009), and Adato and Hoddinott (2010) offer reviews of effects across programmes. Progres is summarised in Skoufias (2005) and Nicaragua's RPS is assessed in Maluccio and Flores (2005).
- 7 For instance, in Brazil, since both public healthcare and education are universal and free of charge,

these requirements entail no direct financial burden on beneficiaries. They serve broadly as a mechanism to control and identify shortfalls and gaps in the supply of public services (ILO 2009).

- 8 Exceptions include Colombia's Familias en Accion (where households can use private clinics) or Chile's Solidario programme (supportive scheme for indigent households, which requires enrolment in the nearest pre-school or school, irrespective of whether it is private or government).
- 9 Morris et al (2004) disentangle these effects to find that each additional month of exposure to the Brazil's Bolsa Alimentacao was associated with a rate of weight gain 31 grams lower than that observed in excluded children of the same age. Fernald et al (2008) continue to find a positive impact in Mexico's Oportunidades. De Brauw and Hoddinott (2008) are similarly able to isolate the impact of conditionality in Progres and show that the absence of monitoring compliance with conditionality reduced the likelihood of children attending school, with this effect being most pronounced among children who were transitioning to lower secondary school.
- 10 Behrman et al (2005) show that the enrolment impact was larger when children had access to general or technical schools than when they had access to only satellite-based *telesecundaria* schools that rely on videos and have fewer teachers.
- 11 See Das et al (2005) for a detailed and insightful discussion on this issue.
- 12 Smart subsidies are mechanisms to provide subsidised goods and services, designed both to promote market development and to enhance the welfare of the poor. Below market cost provision of goods and services, generally by private-sector suppliers, from which the poor in particular are likely to benefit, can be considered smart subsidies. For more on this, see Minde et al (2008).

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