MNREGA—Programme Details, Critical Analysis, & Alternatives

Shreyes Shekhar

Researching Reality Summer Internship 2014
Working paper: 325

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ABSTRACT

This paper critically evaluates the Mahatma Gandhi National Rural Employment Guarantee Act of 2005, the UPA government's flagship rural employment programme, to determine if it has resulted in an increase in the purchasing power and the standard of living of rural households. Furthermore, this paper also analyses, using evidence from similar schemes adopted in other countries (and within India), whether direct cash transfers would be better suited to serve the same purpose with fewer leakages. In balance, this paper recommends evaluating large-scale pilots of replacing the existing rights-based welfare system with a system of biometrically-authenticated, electronic, direct cash transfers, utilising the Aadhaar card, before implementing it on a national scale. Moreover, it is recommended that the transfer be implemented in the form of an education subsidy that is contingent on school attendance.

INTRODUCTION

The National Rural Employment Guarantee Act of 2005 (hereinafter referred to as MNREGA), later renamed after Mahatma Gandhi, is the flagship central government scheme for providing for the 'enhancement of livelihood security of the households in rural areas of the country'. (nrega.nic.in/rajaswa.pdf, accessed 10th June, The Gazette of India, NREGA, Page 1) The programme guarantees one member of every rural household hundred days worth of unskilled manual employment at a minimum wage—set at 60 rupees per day originally, and, later, at 100 rupees per day, before being linked to the Consumer Price Index (CPI) since January, 2011. (Bhagwati & Panagariya 2013, Location 2680)[1] Unparalleled in its scope, the programme was implemented over three distinct phases, covering two hundred of the most backward districts in the first phase, one hundred and thirty more in the second phase, and the remaining two hundred and seventy four rural districts in the third phase. [2]

The act also specifies an unemployment allowance if an applicant is not provided with employment within fifteen days of receipt of his application. This allowance is required to be at a rate no less than one-fourth of the wage rate for the first thirty days, and no less than half of the wage rate for the remaining period. Moreover, at least one-third of the beneficiaries are required to be women who have registered and have requested work. Labour hired under the scheme would be, as specified in the act, employed in public works such as: water conservation and water harvesting; drought proofing; irrigation canals; land development; and, flood control, amongst others. (The Gazette of India 2005, 13) (Recently, however, press reports have indicated that the Rural Development Ministry is likely to make it mandatory that 60% of work undertaken in a district under the scheme should be linked to agriculture.[3])

1 It is worth considering, however, whether, in India, the CPI is the most accurate measure of inflation. Indeed, the "RBI considers changes in the wholesale price index (WPI), as the headline inflation as (sic) the most relevant variable representing overall picture of inflation in the country". (Mohanty, 2011; Gulati & Saini 2013, 13)

2 See http://nrega.nic.in/mnrega_dist.pdf for a detailed breakdown of the districts covered in the various states under the three phases. (Accessed 3rd July)

3 See Ghildiyal (2010), for instance.

By some estimates, the central government has spent, cumulatively, Rs. 2.3 trillion on the scheme[4], without commensurate creation of durable assets in rural areas or poverty-reducing effects, as this paper will show in the following section(s).[5] On balance, therefore, this paper argues that replacing the existing, leakage-ridden, welfare system, of which NREGA is the largest aspect, with direct, biometrically-authenticated transfers, separated into education and nutrition 'subsidies', contingent on certain parameters, would be the optimal way forward. Moreover, this paper also discusses whether these transfers should have a 'sunset provision', arguing in the affirmative, following which we could, perhaps, transition to a negative income tax system.

4 See Livemint (2014).

5 If the number of poor, as gauged by the Tendulkar Committee methodology—which, it must be noted, has been criticised as being too conservative—is assumed to be 269.3 million, according to some back-of-the envelope, inflation-unadjusted, calculations performed, the expenditure on the scheme could have placed, instead, Rs. 8540.66, on average, in every beneficiary's hands—a relatively large sum, given that, for instance, were both parents in a household working, they could have received Rs. 17081.32, on average, over the nine years of implementation, and that, according to the same method, the average all India rural montly per capita poverty line estimate is Rs. 816. (Planning Commission 2013) A household with two NREGA beneficiaries, then, would have received Rs. 177.93 per month over eight years, whilst retaining the ability to sell their labour at the market rate.

CONTEXTUAL REVIEW

Rural works programmes are not an alien concept, especially as seen during times of depression. Franklin Roosevelt, for example, initiated the Public Works Administration programme as part of the New Deal of 1933, to employ millions of unskilled workers to carry out large-scale public works such as roads, dams, bridges, and other public buildings. This programme, perhaps the only one comparable to NREGA in its allocation, was extensive in scale, with its initial appropriation being $4.9 billion in 1935, which amounted to 6.7% of the GDP in that year. (Bhagwati & Panagariya 2013, Location 2691) Following the recent financial crisis, Latvia instituted Workplaces with Stipends, an emergency public works programme that targeted registered unemployed people who were not receiving unemployment benefits. Mehtabul Azam, Celine Ferre, and Mohamed Ihsan Ajwad (2012), evaluating the programme, find that it was successful at targeting the poor and vulnerable households, and that the leakage to non-poor households was small. The authors further note that the income of participating households increased by 37% relative to similar households that did not participate in the programme, whilst mitigating the impact of job loss through the stipend provided—in the short term, at least.[6]

Public works programmes have been used extensively in response to either a "one-time large covariate shock, or repeated shocks", as Carlo del Ninno, Kalanidhi Subbarao, and Annamaria Milazzo note in "How to Make Public Works Work: A Review of the Experiences". The authors also note that, for public works programmes to be successful, it is important to have clear objectives, select projects that can create valuable goods, and ensure predictable funding. The success of the programme depends critically on careful design and incorporation of all the key design features. Moreover, the programme also requires a monitoring and evaluation system that is designed to correct, mid-course, for sudden changes that inhibit implementation. Generally, public works programmes provide an income transfer via wages to smooth consumption of poor households in the wake of a major shock such as an economic crisis,

6 However, the paper notes that the foregone income—"the difference in earnings or performance between what is actually achieved and what could have been achieved with the absence of specific fees, expenses or lost time" (Investopedia)—for this programme was less than the foregone income in other countries, which suggests a dearth of employment opportunities in Latvia—a finding that is germane to the discussion of whether the market, rather than rural works programmes, would be a more reliable provider of productive employment opportunities in a developing economy such as India's.

natural disaster, or seasonal shortfall in employment and income—NREGA, then, is, arguably, an unique programme in this respect, given that it was launched during a period of relatively high growth in the economy, and not for any of these reasons, other than, perhaps, the third. Programmes launched in East Asia in 1997, Latin America in 2002, and after the tsunami hit many Asian countries in 2005 are examples of programmes set up to mitigate the negative effects of a shock. In Bolivia, the Plan Nacional de Empleo de Emergencia (PLANE) was launched as a temporary intervention with the objective to generate employment for poor families in the aftermath of an economic crisis. Due to a prolonged difficult economic and social situation, the programme was expanded and incorporated as a permanent anti-poverty programme. In Mexico, similarly, the government launched the Programa de Empleo Temporal (PET) to support the income of the most vulnerable people and address inherent structural problems which inhibit income and employment generation. Whilst these programmes are designed to mitigate covariate shocks (one-time shock and seasonal), certain rural works programmes, such as NREGA, are designed to mitigate idiosyncratic shocks by guaranteeing employment at a low wage when demanded by workers. Thus, in countries where there is no formal unemployment insurance, these programmes perform an insurance function by guaranteeing a wage upon demand. An example of this can be found in the Employment Guarantee Scheme (EGS), as implemented in Maharashtra, and which has been called the "most successful direct governmental effort at reducing absolute poverty in rural areas".[7] (Ravallion, Dutt & Chaudhuri 1993, 251)

Since the mid-1970s, the EGS has aimed to offer rural unskilled employment on demand, creating or maintaining rural infrastructure through small-scale irrigation and soil conservation projects, reforestation, and rural road building. In a typical year, it provided about 100 million person-days of employment, at an average cost of about US$1 per day in the late 1980s. During the drought period of 1970-73, the EGS operated, primarily, as a relief programme; following the drought, the government continued the programme, operating it as an anti-poverty scheme instead. The law, voted in unanimously by the Maharashtra Legislative

7 Interestingly, as Herring & Edwards (1983) note, discussion of such a programme in Maharashtra is not new. In Dnyanoday (Vol. III, 1844, 142-143), a Christian periodical of Ahmednagar district, discusses a general offer of employment on public works to the "lower class who are prone to stealing", as increasing the police force was seen as an unacceptably costly solution that would necessitate a large increase in taxes.

Assembly in 1977[8], declares that "every adult person in the rural areas in Maharashtra shall have a right to work, that is, a right to get guaranteed employment…in accordance with the provisions of this Act, and the Scheme made thereunder". (Maharashtra, Planning Department 1981, 907 as quoted in Dev 1995)

It has been argued, moreover, that the EGS, by making employment an entitlement, facilitated "collective political action by the poor, and promotes the realization [sic] of their common interest". (Dev 1995, 111) The programme, it has been argued, makes rural politicians more responsive to the demands of the poor, providing them with opportunities for taking effective action and encouraging the mobilisation of their political resources. (Echeverri-Gent 1988, as quoted in Dev 1995, 111) Theoretically, too, given that individuals decide to join the scheme following a comparison of their reservation wage and the EGS wage, the programme is, inherently, self-targeting. The EGS has been shown to successfully target the poor by Ravallion (1991, 159), who compares the income distribution amongst participants with that for the rural population as a whole, using the results of micro-studies. Studying the villages of Shirapur and Kanzara, using International Crops Research Institute for the Semi-Arid-Tropics (ICRISAT) village-level data, Deolalikar and Gaiha (1993) examine targeting performance, and find that the programme effectively targeted female agricultural workers who are household heads, come from low-income and low-asset households, and who have low levels of schooling. Dutt and Ravallion (1992) show that, in general, poorer households participate in the programme.[9]

With regards to the anti-poverty impact of the programme, Dev (1992) has calcuated that EGS was able to eliminate, approximately, no more than 7% of unemployment. Similarly, Osmani

8 The conception of the EGS can be traced back to a pilot project in Tasgaon Block of Sangli District, which was designed and operated as an Integrated Area Development Scheme, commonly known as a "Page Scheme", named after the late VS Page, a Gandhian activist who originally conceived it. Subsequently, a modified EGS pilot project was initiated in November 1970 in all eleven districts of the state. During the elections in 1971, the State Congress Party committed itself to a fifteen-point programme to tackle the problems of poverty and unemployment, incorporating, as part of it, EGS at the state level as a special programme in April 1971 with an annual budget of Rs. 50 million. In May 1972, the government extended the EGS to all rural areas in the state.

9 "However, they also note that there are signs that social stigma and work disabilities offset targeting performance somewhat. In other words, low-wealth high-caste people and people with physical disabilities participate less". (Dev, 118)

(1991) concludes that the EGS was able to eliminate one-third of the underemployment in the state. EGS' impact on income has also been widely studied, with estimates ranging from 21% (Desphande 1988) to 65% (Dandekar 1983). Acharya & Panwalker (1988), comparing a sample of hundred households with members who availed of the programme to hundred households who did not, found that the annual wage income of EGS households was Rs. 32 higher than the wage income of non-EGS households.[10] (Dev 1995, 122) In this context, then, it is worth evaluating a similar programme that is the focus of this paper—the NREGA.

10 The study also estimates that the average contribution of the programme to total income of the households was about one-third. However, for the households who also have some form of home production or family enterprise, the concept of total income is difficult to interpret. Therefore, the share of EGS income to total income has to be interpreted with caution, at least for these households.

POSITIVE IMPACT OF NREGA

Several studies have assessed the anti-poverty impact of the programme, employing measures such as Difference-In-Difference[11] and Regression Discontinuity[12] to examine the relative effects on growth of wages, employment, consumption, savings, child labour, and schooling between households exposed to the scheme across different phases. (Mookherjee 2014) In their paper on MNREGA's impact on private employment and wages, Clement Imbert and John Papp establish that the programme's public sector hiring crowded out private sector work, increasing wages therein. They conclude that daily wages of casual labourers increased by roughly 5.5% in early districts relative to late districts—with the classification depending on governmental implementation in districts, as detailed in the introduction[13]—Imbert and Papp also argue that this increase can be attributed to the programme and not to "pre-existing differential trends in early and late phase districts", as: the employment and wage results are concentrated in the lean season when the majority of agricultural workers are employed by the programme; the results are concentrated in what Imbert and Papp label the five star states—Kerala, Rajathan, Himachal Pradesh, Tamil Nadu, and Andhra Pradesh, where the wage rise increases to 9% (Mookherjee 2014); and, a "placebo test using 2004-2005 data does not reveal any differential trends in causal wages between early and late districts before the programme was implemented". (Imbert & Papp 2012, 3) Econometric studies, such as the one quoted above, and Berg, Bhattacharyya, Durgam, and Ramachandra (2012); and, Zimmerman (2012) have also shown that the programme has increased rural wages significantly, with estimates between 4-8%.[14] Azam (2012) finds a positive impact on labour force participation—an impact driven, primarily, by female labour force participation. He concludes that NREGA has had a significant positive impact on the wages of female casual workers—their real wages increased 8% more in

11 In the simplest imaginable set-up, one group is exposed to the treatment during either period, but not during the first, and the other group is exposed to the treatment during either period, and the average gain in the second (control) group is subtracted from the average gain in the first (treatment) group. See "Difference-in-Differences Estimation" for more. (NBER 2007)

12 A way of estimating treatment effects in a nonexperimental setting where treatment is determined by whether an observed "assignment" variable exceeds a known cutoff point. See "Regression Discontinuity Design in Economics" for more. (Lee & Lemieux 2010, 281)

13 See Footnote 2 for more details on this classification.

14 These works were cited in "Can an Employment Guarantee Alleviate Poverty? Evidence from India's National Rural Employment Guarantee Act", Stefan Klonner & Christian Oldiges (2013).

the NREGA districts, as compared with the increase in non-NREGA districts.[1516] Moreover, he also notes that, since the programme has only, largely, increased the average wage of female casual workers, it would not be fair to infer a distortionary impact on the agriculture labour markets—a topic this paper addresses later; rather, the author claims that, by increasing the wages of female workers, the programme has actually improved the "conditions and the bargaining power of the disadvantaged workers". (Azam 2012) Other studies using this methodology—Difference-In-Difference—have shown positive effects on food and non-food consumption, calorie and protein intakes, and on savings. (Mookherjee 2014) Studies—such as Klonner and Oldige (2013) and Carswell and De Neve (2014)—also reveal that the programme had significant poverty-reducing effects for the poorest sections of the population, such as members of Scheduled Castes and Scheduled Tribes—groups that had a poverty rate of 52.7 and 61.9 (in rural areas; by the Dandekar method), as opposed to a non-SC/ST poverty rate of 26.2 (in rural areas).[17] (Planning Commission 2005) It is, however, worth considering if the SC/STs benefited disproportionately from the programme. Given that they represent 24.4% of the population, but their share in the days worked (in 2010-11) was 51.5%, the Scheduled Castes and Scheduled Tribes actually received 2.2 times the average sum placed in households by the programme (4,671 rupees) or 10,275 rupees, on average—"assuming that the distribution of households by caste in the beneficiary population mirrors that of the general population" (Bhagwati & Panagariya 2013, Location 2710)

15 However, he also finds that the impact on NREGA on wages of casual male workers is only marginal—1%. (Azam 2012).

16 There is evidence to corroborate the author's finding on the benefits accruing to women through the programme. Khera & Nayak (2009) find, for instance, that, through better access to local employment, at minimum wages, with relatively decent and safe work conditions, women, nearly half of whom admit that had they not worked at the NREGA worksite, would have worked at home or remained unemployed, have benefited considerably from the programme. Pankaj & Tankha (2010) report, based on an analysis of a field survey, that women as individuals have gained because of their ability to earn indepedently, made possible due to the programme. Studying the exogenous increases in sex-specific agricultural income caused by post-Mao reforms in China to estimate the effects of total income and sex-specific income on sex-differential survival of children, Qian (2008) finds that increasing female income, holding male income constant, improves survival rates for girls, and increases educational attainment of all children. (Qian 2008)

17 These figures have been taken from "Poverty among Scheduled Tribe Population of India", Ministry of Tribal Affairs.

Moreover, MNREGA, despite the leakages inherent in the programme (as I will detail later), has, arguably, done more to transfer purchasing power to the poor than almost all existing redistribution programmes, "which include food, fertilizer, water, and electricity subsidies and even education and health expenditures". (Bhagwati & Panagariya 2013, Location 2716) As noted (in the footnote), the programme has placed, on average, 4671 rupees in rural households—a significant transfer of purchasing power, when compared to other comparable redistributive measures. Moreover, theoretically, rural works programmes are self-targeting in nature—viz. they screen out the non-poor better, and also provide wage incomes to the poor. Additionally, rural employment programmes create rural infrastructure which provides positive externalities due to the public good; NREGA's record in this regard, however, is questionable, as I will address later in this paper.[18] Analysing the incentive case for workfare programmes, Besley & Coate (1992) show that a screening argument—work requirements serve as a means of targeting transfers—seems likely to be strongest in developing countries, such as India, wherein the costs of the crowding out of private sector work by rural works programmes are exceeded by the benefits due to reduced transfers to the non-poor.

18 See Dev & Ranade's paper on the Maharashtra Employment Guarantee Scheme (EGS)—"Employment Guarantee Scheme and Employment Security (http://www.unipune.ac.in/snc/cssh/EGP/5%20Published%20articles%20on%20EGS/15.pdf, accessed 13th June).

NEGATIVE IMPACT OF NREGA

However, evidently, the scheme is not without flaws. As the MNREGA Sameeksha report (2012)—an anthology of research studies on the programme as compiled by the central government—notes, leakages and misappropriations in the scheme include: non-availability of muster rolls at worksites; fake entries in muster rolls; use of contractor and machinery; payments to fictitious (ghost) workers; infrequent social audits, which, along with 'proactive disclosure' was inbuilt in the scheme as an accountability mechanism; and, ineffective grievance redressal. (Ministry of Rural Development 2012) Household surveys and social audits reveal numerous complaints, involving non-issuance of dated receipts, non-payment of unemployment allowance, payment of less than full wages, and delayed payments. In "Social audits and MGNREGA delivery: Lessons from Andhra Pradesh", Farzana Afridi and Vegard Iversen assess the impact of social audits on irregularities in the implementation of MNREGA in Andhra Pradesh, and find that, across three audits, familiar complaints, especially labour-related, persist. For example, in the first audit (n=262), non-payment of or a delay in wage comprised 28.385% of the complaints, and only increased to 34.320% and 47.802% in the second and third audits. Similarly, impersonations or "benami" wage payments rise from 19.301 to 26.057 as a proportion from the first to the second audit. Materials-related complaints fare slightly better—especially the complaint of poor quality of materials, which declines from nearly 45% to 6% across the three audits. (Afridi & Iversen 2013, 34) Moreover, they also show that follow-up disciplinary action following discovered irregularities was largely lacking, with major or medium actions taken in only 3.4% of cases. (Mookherjee 2014) A state-wise overview of the performance of MNREGA reveals that, on average, the number of days of work provided was only 46.2, well below the 100 days of work stipulated. Whilst there were some states—Mizoram (87.8) and Tripura (86.9), for example—that performed relatively well in this regard, there were five states—Arunachal Pradesh (28.8), Assam (25.4), Goa (13.5), Punjab (27.3) and Uttar Pradesh (28.5)—that actually provided fewer than 30 days of employment. (PRS Legislative Research 2014)

Transfers would virtually eliminate all leakages under the NREGA, as Bhagwati and Panagariya write in "Attacking poverty by guaranteeing employment". Whilst the precise volume of leakages is not known, Anil Sharma in "Evaluating Performance of National Rural Employment Guarantee Act" estimates it to be one-third to half of the stipulated wages in Jharkhand, Orissa, and UP. In Orissa, it is estimated that 58% of the wages disbursed in sample works during the

first two years of the programme reached workers listed in the muster rolls, with the proportion being only 26% in the Kalahandi Balangir Koraput region. (Sharma 2009, 129, footnote 8) Moreover, all three states have what is referred to as the PC or percentage system in which bribes have to be paid according to fixed percentages to the whole hierarchy of staff up to the block level, and sometimes going higher. (Ibid., 128)

Moreover, as noted in the introduction, NREGA has also led to severe distortions in the labour market that cash transfers would avoid. Bhagwati and Panagariya argue that the programme distorts the labour market in three ways—diversion of the labour force away from productive private-sector employment; increasing the market wage, thus posing the risk of "perverse choice of input mix in agriculture" (Bhagwati & Panagariya 2013, Location 2767); and, a possible adverse impact on work culture. They argue that by reversing the process of social return driving the search for resources to finance a project, NREGA, wherein the availability of funds drives the search for projects, incentivises local authorities to formulate projects that have miniscule social value—evidence for which is corroborated by detailed analyses of the quality of assets created. Whilst the act also specifies the creation of durable assets as a priority, evidence in this regard is to the contrary. Sharma, in the aforementioned study, provides a few examples that underscore the problem in terms of asset quality. In Haryana, for instance, "ponds were dug in a drought-prone area with scanty rainfall, soil was sandy and had no water retention power and others were without water". (Sharma 2009, 125) "In Orissa, road works executed remained 'kaccha', even after improvement because improvements were not able to provide all-weather access". (Ibid.) "A lot of money was spent on digging ponds without conceptualizing (sic) factors like catchment area, sources of recharging, technical sanctions, and preparation of detailed estimates. Assets created in Karnataka were not according to specification and quantities executed were not as per the technical sanction". (Ibid.) Hirway et al. have, also, found that the multipliers from NREGA based works have low values.[19]

19 However, their work was based in a small area in Gujarat—the village of Nana Kotda—and it is, therefore, not surprising that the multiplier was small, "due to the village's external dependence for its consumption." ("Implementation Of NREGA In India", J. Breman & J. Varinder, Hivos Knowledge Programme Paper 9, 2012)

Lastly, it is also worth considering the linkage, if any, between NREGA and inflation. Gulati & Saini (2013) consider this in "Taming Food Inflation in India", and note that, following the financial crisis, India, like China and the United States of America, passed a stimulus package, increasing its fiscal deficit. However, whilst China spent a large portion of the package on infrastructure development, the Indian fiscal package "largely comprised of boosting consumption through outright doles (like farm loan waivers) or liberal increases in pay to organized workers [sic] under Sixth Pay Commission and **expanded MNREGA expenditures for rural workers**". (Gulati & Saini 2013, 16) However, although this boosted demand, a corresponding easing of supply bottlenecks did not result, and, soon, too much money was chasing too few goods. Moreover, agriculture prices tend to be more responsive to monetary shocks, whereas the price of many manufacturing sector goods are stickier in the short run due to long-term contracts. (Thompson, 1998 as quoted in Gulati & Saini 2013, 18) It is also arguable that NREGA raises the costs of production in agriculture by triggering rising farm wages—evidence for which is borne out by real farm wages growing close to 6.9% per annum during the five years between 2007-08 and 2011-12.[20] The immediate impact of these increased wages, as the authors note, is to push up the farm prices, either through the channel of MSP or market forces—as typical of 'cost-push' inflation. As Damodaran (2012) notes, rising farm labour costs also raise the benchmark 'reservation wage' in the economy—"the lowest rate that workers are prepared to accept for jobs across sectors". (Damodaran 2012, as quoted in Gulati & Saini 2013, 20)[21]

20 Gulati & Saini (2013) calculate this by converting the nominal wages, which grew at 17.5.% per annum during this period, as shown by Farm wage index movements, to real wages by deflating the nominal wages in each state by that state's CPIAL.

21 It is also worth considering, if the programme contributed to inflation by increasing the revenue deficit, which Yashwant Sinha, the former finance minister, has argued is the main culprit behind the persistently high Indian inflation. Gulati & Saini (2013) also show that a 1% increase in fiscal deficit increases money supply by more than 0.9%, corroborating Barnett, Bessler & Thompson's (1983) study on the role of money supply in explaining the inflation in agri-prices in the USA in 1970s, which concluded that "without monetary expansion, no long-run inflation can occur". However, it is also arguable if NREGA is a large enough programme to significantly impact fiscal deficit.

CASH TRANSFERS—A VIABLE ALTERNATIVES

In this last section, then, this paper argues for moving towards a system of direct, conditional, biometrically-authenticated cash transfers to replace the existing welfare system, of which NREGA is the largest part, in large-scale pilot projects, before evaluating impact and transitioning to a national-level programme. Conditional cash transfers are, broadly, defined as the provision of assistance in the form of cash "made conditional upon certain behaviours of the beneficiaries, such as regular school attendance of their children or regular health center visits [sic]". (The World Bank 2011) Transfers would virtually eliminate the leakages associated with NREGA, the extent of which was discussed in the previous section; moreover, the funds that the programme spends on materials (nearly 35%) would be available for distribution to the poor households. Similarly, whilst NREGA gives the beneficiary a wage higher than the market rate, it takes away his labour in return. With the cash transfer scheme, however, the beneficiary will receive the equivalent amount of public money—after accounting for the 35% the programme spends on materials—and will also get to keep his labour, for which he can additional wage in the market. (Bhagwati & Panagariya 2013, Location 2750)

In this section, then, I will analyse: a major concern regarding cash transfers—that the poor would spend it on alcohol and tobacco; evidence on whether transfers must be contingent on certain parameters—viz. whether the transfers must be conditional or unconditional; evidence from various cash transfer schemes, largely in the form of education subsidies, and possible lessons for implementation; and, lastly, pilot schemes that have been implemented in India, and opportunities for expansion or adoption to the national level.

With regards to cash transfers, a major concern has been that households will misuse the cash. In "Cash Transfers and Temptation Goods: A Review of Global Evidence", David K Evans and Anna Popova analyse nineteen studies with quantitative evidence on the impact of cash transfers on what they call temptation goods, as well as eleven studies that surveyed the number of respondents who reported they used transfers for temptation goods. Alcohol and tobacco are frequently referred to as temptation goods, a term used by Banerjee & Mullainathan (2010) to refer to "goods that generate positive utility for the self that consumes them, but not for any previous self that anticipates they will be consumed in the future". (Banerjee & Mullainathan, 1) Whilst there is some evidence that the poor wish to reduce

spending on these items[22], alcohol and tobacco are often considered normal goods—viz. therefore, as income rises, consumption of these goods will rise.[23] Across forty-four estimates from the nineteen studies, the authors find that 82% of the estimates are negative—viz. there was no spending of the money on temptation goods—whilst only two are positive and significant (with both these estimates, estimates within the study are discordant.) When the analysis is restricted to randomised trials, the author finds that more 80% of estimates are negative; no randomised trial found a statistically significant increase in expenditures on alcohol and tobacco. (Evans & Popova 2014) Of the eleven studies that rely on surveys or focus groups to quantify how many beneficaries use transfers for temptation goods, four identified a proportion of beneficiaries or households that spent some or all of the transfer on temptation goods. The median proportion, however, was only 1.2%—a small fraction of households.

There is, however, the possibility that, as a result of a "socially desirable bias", beneficiaries will report low expenditure on these goods because "they want to minimize the risk of expulsion from the program or other potential negative consequences [sic]". (Evans & Popova 2014, 10-11) However, the authors note that this is not a major problem herein as: impact estimates are usually based on detailed expenditure surveys that do not single out alcohol and tobacco, and instead ask a household respondent how much the household spends on each of a long list of items; and, transfer income is not asked about separately, so households would have to recall the amount of their overall income spent on temptation goods before the programme and report a similar amount later. (Ibid., 11) Whilst I have only analysed the impact of cash transfers on the purchase of temptation goods, various other studies have examined the impact of cash transfers on consumption. For example, Schady & Rosero (2008) show that food expenditures

22 Banerjee & Duflo (2007), for instance, conduct a survey of households in Hyderabad, and find that, when asked if they would like to eliminate any expenses in their budget, 28% identified at least one, and the top items (44% of those) that households wanted to cut were alcohol and tobacco.

23 Evidence from the United States suggests that alcohol is a normal good, whilst tobacco is an inferior good (Decker & Schwartz 2000); evidence from the United Kingdom suggests that alcohol expenditures rises with income, at least to a point (Banks, Blundell & Lewbel 1997); Banerjee & Duflo (2006; 2007) show that, for households living on under $1.08 per day and for households living on under $2.16 per day, 14 of 21 combinations studied (11 countries divided into rural and urban areas, with urban Guatemala excepted) increased or maintained the same percentage of spending on alcohol and tobacco combined, suggesting an increase in the total spending on temptation goods.

were much higher for transfer recipients than non-recipients in the Ecuador programme, even when controlling for per capita expenditures—a finding contrary to Engel's law, which states that, as income rises, proportion of income spent on food declines; Macours, Shady & Vakis (2012) find that, in Nicaragua, cash transfer recipients shifted the composition of food expenditures to more expensive foods (more protein, fruits, and vegetables); and, Case & Deaton (1998) demonstrate that pension income in South Africa increased food consumption and may have reduced alcohol and tobacco consumption, depending on the specification. (Ibid., 5) Fiszbein & Schady (2009) find that the food share is about four percentage points higher among programme beneficaries in Colombia, Ecuador, and Nicaragua, than among non-beneficiaries. In Mexico, the value of food consumption was 11% higher for beneficiary households than for comparable control households, and the median caloric consumption had increased by 8% (Hoddinott, Skoufias & Washburn 2000) Moreover, they also find that the increase in expenditures on food generally is directed towards increasing quality.[24](Schady & Rosero 2007, 2008 hypothesise that CCTs increase the bargaining power of women within the household, and that this results in increased food expenditures, as evidenced by the shift of the Engel curves.)

EVIDENCE ON CONDITIONALITY

Should cash transfers be conditional—or is there evidence to suggest that an unconditional cash transfer without the imposition of conditions, but aided by active governmental nudging, would have a similar impact on household purchasing power? There are three main conceptual arguments for conditioning a cash transfer: that incomplete altruism—parental decisions that are not fully consistent with what the child would have chosen herself, were she fully rational—results in underinvestment in human capital; even if the levels of human capital investment by the poor were privately optimal, they might not be socially optimal because of the presence of

24 Households that benefited from Familias en Accion in Colombia, for example, significantly increased items rich in proteins, such as milk, meat, and eggs. In Nicaragua and Mexico, the increases in food expenditure were driven largely by increased consumption of meat, fruits, and vegetables. (Hoddinott, Skoufias & Washburn 2000; Maluccio & Flores 2005) Angelucci & Attanasio (2008) also find that, for urban Oportunidades in Mexico, households that receive transfers spend significantly less on staples and significantly more on animal protein, as well on fruits and vegetables. (Fiszbein & Shady 2009, 113)

externalities; and, that conditioning cash transfers on good behaviour may increase public support for them, making the programme either feasible or better-endowed. (Fiszbein & Schady 2009, 50) de Brauw & Hoddinott (2007) and Schady & Araujo (2008) both find that, based on the fact that some households in Mexico and Ecuador did not think that the cash transfer programme in their respective country was conditional on school attendance, school enrolment was significantly lower amongst those who thought that the cash transfers were unconditional. Ex-site programme evaluations provide further evidence that the impacts on various schooling related outcomes would have been significantly attenuated without the conditionality. However, the primary virtue of unconditional cash transfers is that they work "when the lack of money is the main problem". (The Economist 2013)

An extreme example, as conducted by Christopher Blattman, Julian Jamison, and Margaret Sheridan, showed that the transfer of unconditional grants of $200 to some of the least disciplined men to be found—drug addicts and petty criminals in the slums of Liberia—showed positive results—instead of wasting the money, the recipients spent the majority of the funds on basic necessities or starting their own businesses. If these men could use money responsibly, who would not? (Blattman & Niehaus 2014) In a randomised evaluation conducted in the Democratic Republic of Congo, a country that has been plagued by intense civil war for much of the past two decades, Jenny Aker found that unconditional cash transfers could actually be a more efficient means of improving outcomes for extremely vulnerable populations, even in failed states, with the caveat that access to functioning markets for goods and services is a necessary precondition for cash-transfer programmes to succeed. (Aker 2013)

In another study, conducted in Uganda by Christopher Blattman, Nathan Fiala, and Sebastian Martinez, a government-run training programme, which gave grants of around $7000 over 250 groups of 15-25 young adults (roughly $400 per group member) in return for a simple business plan describing how they would use the money to buy vocational training and tools, was examined. The groups were otherwise free to spend the money without oversight. The majority of the participants ended up using the funding to enter skilled trades such as tailoring or metalworking. However, even though they spent most of the money acquiring the physical tools and materials they needed to start working, allocating only ten percent of the grants to training, the participants' incomes rose by an average of roughly 40%—a return better than secondary education, "which pushes up wages in poor countries by 10-15% for each extra year

of schooling". (The Economist 2013; Blattman & Neihaus 2014) However, evidence in this regard is not all positive. In an experiment conducted in Malawi, for example, Sarah Baird, Craig McIntosh, and Berk Ozler, found that whilst there was a modest improvement in school enrolment in the unconditional cash transfer arm in comparison to the control group, this increase was only 43% as large as the conditional cash transfer arm. The conditional cash transfer arm also outperformed the unconditional arm in tests of English reading comprehension.[25] (Baird, McIntosh & Ozler 2010) In direct contrast to the Uganda experiment, a smaller programme in Ghana, which gave $120 to a random selection of business owners, some unconditionally and some requiring the owner to buy something for his or her firm, revealed that the conditional benefits proved more useful: profits at firms that got such payments were twice as high after three years as at firms that got cash with no strings attached. Moreover, since cash is "all-important to unconditional schemes, they tend to be more generous and expensive than CCTs". The grants of the Kenyan cash transfer programmes, for example, are the equivalent of two years' local income; Brazil's Bolsa Familia, on the other hand, is worth only 3% of the average Brazilian's income. (The Economist 2013)[26]

25 However, the schooling condition proved costly for important non-schooling outcomes—teenage pregnancy and marriage rates—both of which were substantially higher in the conditional than the unconditional arm. (Baird et al. 2010)

26 In a similar regard, it is also worth considering to whom the cash transfers should be made. Lundberg, Pollak & Wales (1997) provide evidence that when transfers were made to women in a British transfer programme, a larger fraction of household expenditures were made to purchase children's clothing. The evaluation of another British pilot programme (Education Maintenance Allowance) found that impact on enrolment doubled when the payment was made to the young person. (Ashworth et al. 2002) Berry (2009), examining the assignment of incentives to the parent or the child on a specific reading goal in India, finds that the incentives to the child maybe more effective if the children have less productive parents and lower initial test scores. It seems plausible, then, that at least a portion of the transfers to young people—either directly, or into a savings account—may be worth considering.

EVIDENCE FROM SIMILAR PROGRAMMES—COLOMBIA, MEXICO & MALAWI

In this section, then, I will analyse evidence from education subsidy programmes across different countries, and cite possible lessons for India in implementing a similar programme. Felipe Barrera-Osorio, Marianne Bertrand, Leigh L. Linden & Francisco Perez-Calle show, with evidence from a randomised experiment in Colombia, that all of the cash incentive treatments—a monthly or bi-monthly subsidy, similar to the PROGRESA programme in Mexico; a savings treatment, wherein 2/3rd of the funds are distributed immediately and the remaining at the time the students enroll in school; and, a tertiary treatment that provides children with the same lower montly subsidy as the savings treatment, but also pays a large subsidy that incentivises both graduation and matriculation to an institution of higher education—generate significant changes in the behaviour of students directly treated by the programme—students are 2.8% points more likely to attend school, 2.6% points more likely to remain enrolled, 1.6% points more likely to matriculate to the next grade, 4% points more likely to graduate, and 23% points more likely to matriculate to a tertiary institution. Simply changing the timing of the transfer with the savings incentive increases enrolment in both secondary and tertiary schools over the basic treatment (by 3.6% and 3.3%, respectively), whilst not reducing the daily attendance rates of students despite the lower monthly transfers. Compared to the first treatment, the third results in higher levels of daily attendance (3.5% points more for students least likely to attend), and higher levels of enrolment at the secondary (3.3% points) and tertiary levels (46% points). There is much to gain, therefore, in designing CCTs that better take into account the savings constraints (such as lack of formal savings institutions or commitment problems) many families face, as the structure of the cash incentive programmes matters (simply postponing some of the cash transfers to a large lump-sum, at the time of the re-enrolment decision, increases enrolment in both secondary and tertiary institutions without reducing daily attendance.) (Barrera-Osorio, Linden & Perez-Calle 2008)

Colombia's PACES programme awarded nearly 125,000 vouchers to low-income high school students; since vouchers were renewable annually conditional on satisfactory academic progress as indicated by scheduled grade promotion, the programme provided incentives for students to work harder as well as widening their schooling options. Estimates using administrative records suggest the PACES programme increased secondary school completion rates by 15-20%. Correcting for the greater percentage of lottery winners taking college admission tests, the programme increased test scores by two-tenths of a standard deviation in

the distribution of potential test scores. Boys, who have lower scores than girls in this population, show larger score gains, especially in mathematics. (Angrist, Bettinger & Kremer 2004)

The PROGRESA programme provides poor mothers in rural Mexico with education grants, if their children attend school regularly. T Paul Schultz finds that the level of enrolment rates of comparably poor children in PROGRESA localities (treatment) are higher than in non-PROGRESA localities (control) in the three survey rounds collected after September 1998 when the PROGRESA programme began offering educational grants to poor mothers whose children were enrolled in school in grade 3 through 9. These differences are often larger for girls than for boys. Pre-programme differences were not significant, suggesting that the implementation of the random assignment was performed successfully. The programme targets geographically and economically the poor, located in relatively immobile, rural villages of Mexico; evidence is presented that this targeted transfer payment has the effect of reducing the economic inequality in school enrolments within the PROGRESA localities compared with that in the non-PROGRESA localities, and these impacts on enrolment inequality reach statistical significance from grades 4 through 6. In another paper, "School Subsidies For The Poor: Evaluating A Mexican Strategy For Reducing Poverty", Schultz notes that, if the current relationship (paper written in 2000) of the programme outlays to enrolments, and that of schooling to increased adult earnings, both persist in the future, the internal rate of return to the PROGRESA educational grants as an investment is estimated to be about 8%, which accrues in addition to the programme's efficacy as a poverty reduction programme. (Schultz 2001)

Sarah Baird, Craig McIntosh, and Berk Ozler present one-year schooling impacts from a conditional cash transfer experiment among teenage girls and young women in Malawi, which was designed to address the following shortcomings: conditionality status, size of separate transfers to the schoolgirl and the parent, and village-level saturation of treatment were all independently randomised. The authors found that the programme had large impacts on school attendance: the re-enrolment rate among those who had already dropped out of school before the start of the programme increased by two and a half times and the dropout rate among those in school at baseline decreased from 11 to 6%. These impacts were, on average, similar in the conditional and the unconditional treatment arms. Higher transfers given directly to the schoolgirls were associated with significantly improved school attendance and

progress—but only if the transfers were conditional on school attendance. The authors found that a $5/month transfer to a household made unconditionally had roughly the same impact on schooling outcomes as a $15/month transfer made conditional on school attendance. Moreover, given that a total transfer offer of $5 per household induces the average girl to be 10% points more likely to be in school after one year, the insignificant 1.4% point increase in schooling rates achieved by doubling the total transfer to the household to $10 does not seem cost-effective. (Baird, McIntosh & Ozler 2009)

EVIDENCE FROM INDIA—KARNATAKA, RAJASTHAN & BIHAR

In this section, I will analyse two cash transfer programmes that have been implemented in India—one dealing with targeted conditional cash transfers to widows and the elderly in the states of Karnataka and Rajasthan, and one dealing with an innovative scheme in the state of Bihar that aimed to reduce the gender gap in secondary school enrolment by providing girls who continued to secondary school with a bicycle that would improve access to school. First, an evaluation of the cash transfer programmes in Karnataka and Rajasthan for the eldery and widows, based on the national household survey data, and surveys on social pension utilisation, reveals that these social pension schemes work reasonably well. Levels of leakage are low, funds flow disproportionately to poorer rather than richer households, and there is strong evidence that the funds reach vulnerable individuals. A comparison with the public distribution system reveals that the main strength of the social pensions scheme is its relatively low level of leakage. In comparison to the Public Distribution System (PDS), for example, the targeting performance of the cash transfer scheme remains fairly similar—pension schemes do better at targeting the poorest 20%, but also provide more to the top 20%—but leakages, as noted earlier, are substantially reduced. In Karnataka and Rajasthan, 96% and 93%, respectively, of enrolled pensioners received their pensions. With regards to the PDS, however, the Planning Commission estimates that consumption of grains from PDS shops was only 46% of the grain supplied to them in 2004-05, down from 72% in the previous decade.[27][28] (Programme Evaluation Organisation 2005; Planning Commission 2007; Dutta, Howe & Murgai 2010)

27 The leakages varied between states; in Karnataka and Rajasthan, it was 64% and 41%, respectively.

28 Possible reasons for current low level of leakages: Supply side (levels of discretion are low; bribes might have to be paid to join the scheme, but once a pensioner is on the list, there is little scope for further diversion of funds, at least on a large scale. In the PDS, however, there are discretionary

The Mukhyamantri Balika Cycle Yojana (Chief Minister's Bicycle Programme) was introduced by the state government of Bihar in 2006 and aimed to improve school access without additional school construction. The programme provided all girls who enrolled in grade 9 with funds to buy a bicycle to make it easier to access schools, and was, therefore, a conditional kind transfer.[29] Karthik Muralidharan and Nishith Prakash, evaluating the programme, employ a triple difference approach (using boys and the neighbouring state of Jharkhand as comparison groups) and find that being in a cohort that was exposed to the cycle programme increase girls' age-appropriate enrolment in secondary school by 30% and also reduced the gender gap in age-appropriate secondary school enrolment by 40%. They also show that increases in enrolment mostly took place in villages where the nearest secondary school was further away—suggesting that the mechanism for programme impact was the reduction in the time and safety cost of school attendance made possible by the bicycle. Moreover, they also find that the cycle programme was much more cost effective at increasing girls' enrolment than comparable conditional cash transfer programmes in South Asia, suggesting that the coordinated provision of bicycles to girls may have generated externalities beyond the cash value of the programme, including improved safety from girls cycling to schools in groups, and changes in patriarchal social norms that proscribed female mobility outside the village, which inhibited female secondary school participation. (Muralidharan & Prakash 2013) Ghatak et al. (2013) conducted a household survey among beneficiaries of this programme in 36 villages spread across six districts of Bihar in September and October, 2012, and found that: only 3% of the total beneficiaries reported not having benefited despite meeting the eligibility criteria; 93.3% of beneficiaries received the right amount of money; only 9% of households had any kind of grievances related to the programme; and, 98% of households surveyed did buy a bicycle using the programme money (though, as the authors note, this data is likely to be biased as beneficiaries may not want to report that they misused the programme money). (Ghatak, Kumar & Mitra 2013)

Lastly, then, it is also worth analysing how this programme could be implemented. Karthik Muralidharan, Paul Niehaus, and Sandip Sukhtankar, working with the Andhra Pradesh

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challenges of signing up, but they have to persuade the shopkeeper to open his shop and sell to them rather than divert his grain to the open market.) and demand side (Payments involved and number of recipients are relatively small, and, therefore, those after public funds through corrupt means are likely to follow the money and target resource-rich programmes.) With the demand side hypothesis, scaling up of this system will compromise it further, but, with the supply side hypothesis, scaling up is warranted, as the authors note.

29 From the academic year 2012-13, the government also imposed an additional conditionality: only children with at least 75% attendance would receive money for the bicycle. (Ghatak, Kumar & Mitra 2013)

Government, randomised the order in which 158 sub-districts introduced biometrically-authenticated electronic benefit transfers into large social programmes: the NREGA and Social Security Pensions. The intervention was referred to as the AP "Smartcards" project; importantly, smartcards provided beneficiaries with the same effective functionality as intended by Aadhaar-enabled Direct Benefit Transfers for these two programmes. The experiment randomised the form of payments over a universe of about 19 million people, with randomisation conducted over entire sub-districts, making it one of the largest randomised controlled trials ever conducted. Under the new system, beneficiaries were enrolled in the smartcard programme through a process that collected biometric data (typically all ten fingerprints) and took a digital photograph. The information was stored in a secure database and a linked bank account was created for each beneficiary, following which they were issued a smartcard that included their photograph and an electronic chip that stored biographic, biometric, and bank account details. The new process of collecting payments involved the following steps: beneficiaries insert their smartcard into a point-of-service device kept by a Customer Service Provider (CSP), which reads the smartcard and retrieves account details; the device prompts for a randomly generated fingerprint to be placed on the card reader; this fingerprint is matched with the records on the smartcard, and transactions are authorised after a successful match; the amount of cash requested is disbursed; the authentication device prints out a receipt as it issues payments, in some cases even announcing transaction details in the local language (Telugu) to assist illiterate beneficiaries. Government regulations required that CSPs hired for this purpose be women who were residents of the villages they served, have completed secondary school, not be related to village officials, not be members of historically disadvantaged castes, and be members of a self-help group—ensuring that the profile of the typical CSP was closer to that of beneficiaries, compared to post-office-officials.

After two years of programme rollout, the share of smartcard-enabled payments in treated sub-districts had reached 50%. Smartcards substantially improved the payment collection process, significantly for NREGA recipients. NREGA workers spent 21 minutes less on collecting each payment (19% less than the control group) and payment delays between working and receiving wages fell by 10 days (29% of the control mean). The absolute deviation of payment delays also fell by 39% relative to control, suggesting that payments became more predictable. Beneficiaries also received significantly more money. The average NREGA household reported earning 23% more through the programme, whilst individual labour supply on NREGA went up 12% (not significant). Government outlays on NREGA did not change, resulting in a 12.2% reduction in leakage of funds. SSP participants saw a 1.8% reduction in the incidence of bribe

demands for obtaining their payments and incidence of 'ghost' SSP pensioners fell by 1.1%. 84% of NREGA job card holders and 91% of SSP recipients who experienced the system reported that they prefer the new system to the old. (Muralidharan, Niehaus & Sukhtankar 2014)

However, despite this successful programme, "Aadhaar-enabled direct benefit transfers" requires three things: "a modern banking sector to which beneficiaries have access; Aadhaar number for all beneficiaries; and, seeding bank accounts with Aadhaar. Only when all three are in place, can Aadhaar-enabled DBTs proceed". (Kapur 2014) Moreover, there are reasons to be skeptical about the impact of new payment technology and whether they warrant the cost entailed—implementation involves a complex mix of technical and logistical challenges, raising the concern that the undertaking might fail unless all components are well-implemented (Kremer, 1993); vested interests might subvert the intervention if their rents are threatened (Prescott and Parente, 2000); new system could generate exclusion errors if genuine beneficiaries are denied payments due to technical payments, which would be particularly troubling if it disproportionately hurt the most vulnerable beneficiaries (Khera, 2011); reducing rent-extraction could paradoxically hurt the poor if it dampened incentives for officials to implement anti-poverty programmes in the first place (Leff, 1964); even assuming positive impacts, the best available estimates of cost-effectiveness depend on a number of untested assumptions (NIPFP 2012). (Muralidharan, Niehaus & Sukhtankar 2014, 3)

In concluding this section of the paper, then, it is worth summarising and collating the findings, and suggesting potential characteristics and implementation methods of a cash transfer scheme, were it to be implemented in India. For a pilot scheme, to be implemented in select states, or areas of states, that proportionally represent income distribution across the nation, the cash transfer scheme could be implemented as an education 'subsidy', as discussed earlier. Thus, as seen from the PROGRESA programme, the cash transfer could be directly transferred to poor mothers—as evidenced by the positive impact of transferring the money to the child in certain cases (see Footnote 24) though, it might also be worth experimenting with a transfer to a savings account opened in the name of the child in certain areas—in rural areas contingent on their childrens' attendance in school. As evidenced by the randomised experiment conducted in Colombia, the cash transfer could be implemented in the 'tertiary manner', with a monthly or bi-monthly subsidy contingent on attendance or school performance, but a larger

subsidy that incentivises matriculation to a tertiary institution. In areas where attendance of girls is particularly low, it would be worth experimenting with a cash transfer directed only at their attendance, or, indeed, modifying the innovative Bihar cycle scheme in areas where distance to the nearest school is frequently cited as an issue. Crucially, it is also necessary to conduct regular evaluations of the programme, perhaps using an indepent auditor, to judge if the funds are reaching households without substantive leakages; whether outcomes on which the transfer is contingent are actually being met; and, whether the evidence on consumption, particularly that of temptation goods, is positive or negative. With regards to the implementation of the transfer itself, expanding the Aadhaar programme, accelerating the distribution of the biometric cards that it entails, and establishing the institutions and electronic apparatus required for the direct transfer of the cash, is imperative to the successful roll-out of the programme. Although smartcards substantially improved the delivery of payments, reducing the delays between working and receiving wages and the time spent on collecting each payment, the sample size was, arguably, insufficient to establish, in a concrete manner, that the method used therein would be sufficiently leakage-proof, irrespective of the region in which it is implemented. Therefore, again, it is perhaps worth experimenting with Customer Service Providers (CSPs) as in the experiment, whilst allowing the programme states the room to innovate with other methods of ensuring the transfer reaches beneficiaries at the time of delivery.

CONCLUSION

Concerns regarding the implementation of Aadhaar-enabled DBTs, however, should not triumph the copious amounts of evidence regarding the benefits of cash transfers, as discussed above—there is, therefore, reason to implement these programmes at a pilot level in states, before evaluating their performance, and adopting them to the national level. Cash transfers, it must be stressed, however, are no silver bullet to solving the issue of poverty in India; nonetheless, there is evidence, as noted earlier, that they might be the most cost-efficient and effective way of attempting to. Indeed, cash transfers should, ideally, only function as a minimum safety net that would then enable poor households to make optimum use of the opportunity that the market provides. It is, therefore, also worth considering a sunset clause for cash transfers, such that they might cease following the achievement of a minimum per-capita income level, for example.[30]

In this paper, then, I initially analysed the MNREGA programme, providing an evalaution of the scheme's anti-poverty impact—viz. the increase in rural wages that are associated with it, its significant poverty-alleviating impact on the members of the Scheduled Castes and Scheduled Tribes, and its transfer of a larger amount of purchasing power than, arguably, any other existing welfare scheme—flaws associated with it—viz. the amount of leakages associated with (estimated to be between 1/3rd to ½ of the wages in Jharkhand, Orissa, and Uttar Pradesh), non-availibility of muster rolls, payments to fictitious workers, infrequent social audits, the lack of follow-up disciplinary action, ineffective grievance redressal, distortion of the labour market, and creation of assets of miniscule or even negative social value in rural areas—before arguing for a transition to a direct, biometrically-authenticated, cash transfer system. In this section, I analysed a major concern oft cited with regards to cash transfers—that poor households would misuse the cash on what have been labelled temptation goods—providing evidence from a

30 We could, perhaps, consider transitioning to a negative income tax system similar to the Earned Income Tax Credit programme implemented in the USA. The EITC provides an earnings subsidy to family members who have a wage earner, have low income, and resident children. In 2007, for example, 25 million American families received EITC payments totalling $49.7 billion, as a result of which the scheme lifted at least 4 million individuals above the poverty line. ("The Effects of the Earned Income Tax Credit and Recent Reforms", Bruce D Meyer, http://www.jstor.org/stable/pdfplus/10.1086/649831.pdf?acceptTC=true&jpdConfirm=true, accessed 29th June

detailed World Bank report that gathers estimates across nearly thirty different studies to prove that this is, indeed, not the case. Then, I evaluated the question of conditionality of the cash transfer, providing a detailed critique, using evidence from case studies, of the benefits of both systems, before arguing for, on balance, a conditional system (with the possibility of evaluating unconditional transfers in extremely vulnerable areas with access to functioning markets). Then, I provided evidence from education subsidies that have been used in various countries—a randomised experiment in Colombia, Colombia's PACES programme, Mexico's PROGRESA programme, Malawi's cash transfer programme, and Kenya's merit scholarship—often contigent on attendance or another established parameter. Subsequently, I also evaluated two cash transfer programmes in India—the use of targeted, unconditional cash transfers to the widows and the elderly in Karnataka and Rajasthan, and the cycle programme in Bihar—before, lastly, reviewing how we could implement the programme in India, providing evidence from a successful biometrically-authenticated cash transfer system carried out in Andhra Pradesh.

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