

Universal Basic Income: A Conversation With and Within the Mahatma

09 CHAPTER

“I will give you a talisman. Whenever you are in doubt, or when the self becomes too much with you, apply the following test. Recall the face of the poorest and the weakest man [woman] whom you may have seen, and ask yourself, if the step you contemplate is going to be of any use to him [her]. Will he [she] gain anything by it? Will it restore him [her] to a control over his [her] own life and destiny? In other words, will it lead to swaraj [freedom] for the hungry and spiritually starving millions? Then you will find your doubts and your self melt away.”

– Mahatma Gandhi

“My ahimsa would not tolerate the idea of giving a free meal to a healthy person who has not worked for it in some honest way, and if I had the power I would stop every Sadavarta where free meals are given. It has degraded the nation and it has encouraged laziness, idleness, hypocrisy and even crime. Such misplaced charity adds nothing to the wealth of the country, whether material or spiritual, and gives a false sense of meritoriousness to the donor. How nice and wise it would be if the donor were to open institutions where they would give meals under healthy, clean surroundings to men and women who would work for them...only the rule should be: no labour, no meal.”

– Mahatma Gandhi

“Wiping every tear from every eye” based on the principles of universality, unconditionality, and agency—the hallmarks of a Universal Basic Income (UBI)—is a conceptually appealing idea. A number of implementation challenges lie ahead, especially the risk that UBI would become an add-on to, rather than a replacement of, current anti-poverty and social programs, which would make it fiscally unaffordable. But given their multiplicity, costs, and questionable effectiveness, and the real opportunities afforded by the rapidly improving “JAM” infrastructure, UBI holds the prospects of improving upon the status quo. This chapter provides some illustrative costs for a UBI (varying between 4 percent and 5 percent of GDP), and outlines a number of ideas to take UBI forward, highlighting the practical difficulties. UBI’s appeal to both ends of the political spectrum makes it an idea whose time has come perhaps not for immediate implementation but at least for serious public deliberation. The Mahatma would have been conflicted by the idea but, on balance, might have endorsed it.

I. INTRODUCTION

9.1 Despite making remarkable progress in bringing down poverty from about 70 percent at independence to about 22 percent in 2011-12 (Tendulkar Committee), it can safely be said that “wiping every tear from every eye” is about a lot more than being able to imbibe a few calories. And the Mahatma understood that better, deeper, and earlier than all the Marxists, market messiahs, materialists and behaviouralists. He intuited that it is also about dignity, invulnerability, self-control and freedom, and mental and psychological unburdening. From that perspective, Nehru’s exhortation that “so long as there are tears and suffering, so long our work will not be over” is very much true nearly 70 years after independence.

9.2 Today, a radical option to realise Gandhiji’s objective presents itself and has entered the policy consciousness in India and around the world: Universal Basic Income, UBI for short. UBI has three components: universality, unconditionality, and agency (by providing support in the form of cash transfers to respect, not dictate, recipients’ choices). As the above two quotes suggest Gandhiji would have been conflicted by it. This chapter examines UBI in the form of a conversation with the Mahatma, and indeed a conversation that the Mahatma would have had with himself had such a proposal been put to him.

II. THE CONCEPTUAL/PHILOSOPHICAL CASE FOR UBI

9.3 Universal Basic Income is a radical and compelling paradigm shift in thinking about both social justice and a productive economy. It could be to the twenty first century what civil and political rights were to the twentieth. It is premised on the idea that a just society needs to guarantee to each individual a minimum income which they can count on, and which provides the

necessary material foundation for a life with access to basic goods and a life of dignity. A universal basic income is, like many rights, unconditional and universal: it requires that every person should have a right to a basic income to cover their needs, just by virtue of being citizens. The time has come to think of UBI for a number of reasons:

Social Justice: UBI is, first and foremost, a test of a just and non-exploitative society. From Tom Paine to John Rawls, nearly every theory of justice has argued that a society that fails to guarantee a decent minimum income to all citizens will fail the test of justice. It should be evident to anyone that no society can be just or stable if it does not give all members of the society a stake.

A Universal Basic Income promotes many of the basic values of a society which respects all individuals as free and equal. It promotes liberty because it is anti-paternalistic, opens up the possibility of flexibility in labour markets. It promotes equality by reducing poverty. It promotes efficiency by reducing waste in government transfers. And it could, under some circumstances, even promote greater productivity. It is not an accident that Universal Basic Income has been embraced both by thinkers of the Left and of the Right.

Poverty Reduction: Conditional on the presence of a well-functioning financial system, a Universal Basic Income may simply be the fastest way of reducing poverty. UBI is also, paradoxically, more feasible in a country like India, where it can be pegged at relatively low levels of income but still yield immense welfare gains.

Agency: The poor in India have been treated as objects of government policy. Our current welfare system, even when well intentioned, inflicts an indignity upon the poor by assuming that they cannot take economic decisions relevant to their lives. An unconditional cash transfer treats them as agents, not

subjects. A UBI is also practically useful. The circumstances that keep individuals trapped in poverty are varied; the risks they face and the shocks they face also vary. The state is not in the best position to determine which risks should be mitigated and how priorities are to be set. UBI liberates citizens from paternalistic and clientelistic relationships with the state. By taking the individual and not the household as the unit of beneficiary, UBI can also enhance agency, especially of women within households.

Employment: UBI is an acknowledgement that society's obligation to guarantee a minimum living standard is even more urgent in an era of uncertain employment generation¹. Moreover, UBI could also open up new possibilities for labour markets. It creates flexibility by allowing for individuals to have partial or calibrated engagements with the labour market without fear of losing benefits. They allow for more non-exploitative bargaining since individuals will no longer be forced to accept any working conditions, just so that they can subsist.

Administrative Efficiency: In India in particular, the case for UBI has been enhanced because of the weakness of existing welfare schemes which are riddled with misallocation, leakages and exclusion of the poor. When the trinity of Jan-Dhan, Aadhaar and Mobile (popularly referred to as JAM) is fully adopted the time would be ripe for a mode of delivery that is administratively more efficient. The administrative argument however has to be made with some care. While Aadhar is

designed to solve the identification problem, it cannot, on its own, solve the targeting problem. It is important to recognise that universal basic income will not diminish the need to build state capacity: the state will still have to enhance its capacities to provide a whole range of public goods. UBI is not a substitute for state capacity: it is a way of ensuring that state welfare transfers are more efficient so that the state can concentrate on other public goods.

III. THE CONCEPTUAL CASE AGAINST UBI

9.4 From an economic point of view there are three principal and related objections to a universal basic income. The first is whether UBI reduces the incentive to work – a worldview encapsulated in the quote by Gandhiji above; critics conjure up images of potential workers frittering away their productivity. This argument is vastly exaggerated (more evidence in Section I). For one thing, the levels at which universal basic income are likely to be pegged are going to be minimal guarantees at best; they are unlikely to crowd incentives to work. One school of thought would argue that it truly is a diminution of human dignity to suppose that the only motivation for which people work is necessity; take away the yoke of necessity and they will be lazy. The same kinds of arguments used to be made against high wages: that if wages rise beyond a certain level workers will choose leisure over work. There is very little evidence to sustain that proposition².

¹ Traditionally income and employment have been aligned in most societies; even welfare benefits were stop gap arrangements on pathways to employment. A few aberrations apart, unemployment is no longer a consequence of lack of individual effort. All societies must aim for full employment. But in an era where collective arrangements are not able to guarantee the availability of jobs, it is imperative that the alignment of income and employment be loosened somewhat. In the twenty first century it may no longer be possible to guarantee social security or minimum support by linking it to employment.

² Moreover, it could be argued that, the incentive to productive work is liberated only when individuals are not hostage to necessity. One could imagine a more genuinely productive and creative society if work was not associated with the exploitation that comes with necessity.

9.5 The second concern is this: Should income be detached from employment? The honest economic answer to this concern is that society already does this, but largely for the rich and privileged. Any society where any form of inheritance or accepting non-work related income is allowed, already detaches income from employment. So, receiving a small unearned income as it were, from the state should be economically and morally less problematic than the panoply of “unearned” income our societies allow.

9.6 The third is a concern out of reciprocity. If society is indeed a “scheme of social cooperation”, should income be unconditional, with no regard to people’s contribution to society? The short answer is that individuals as a matter of fact will in most cases contribute to society, as stated above. In fact, UBI can also be a way of acknowledging non-wage work related contributions to society³. In the current social structure, for example, homemaking contributions of women are largely unacknowledged economically, since they do not take the form of wage or contract employment. It is important that UBI is not framed as a transfer payment from the rich to the poor. Its basis is rather different. UBI gives concrete expression to the idea

that we have a right to a minimum income, merely by virtue of being citizens. It is the acknowledgment of the economy as a common project. This right requires that the basic economic structure be configured in a way that every individual gets basic income.

9.7 All these arguments require that UBI be indeed universal⁴, unconditional, and involve direct transfers.

9.8 Table 1 lays out succinctly the arguments – conceptual and practical – in favour of and against UBI. In what follows, evidence will be presented on some—not all—of the arguments mentioned above. One begins with the most compelling evidence for universalization, by furnishing numbers on the effectiveness of targeting of current programs. A discussion on the implication for financial inclusion follows. Subsequently, illustrative costs of a UBI are calculated. The chapter concludes by providing potential ideas for taking the idea forward, keeping in mind the two big challenges of costs and a political economy that impedes the phasing down of existing programs.

IV. WHY UNIVERSALIZE?

9.9 The starting point for any UBI must be the status quo. How are existing programs faring in helping the poorest?

Table 1. Arguments in Favour and Against UBI

Favor	Against
<p>Poverty and vulnerability reduction Poverty and vulnerability will be reduced in one fell swoop.</p> <p>Choice A UBI treats beneficiaries as agents and entrusts citizens with the responsibility of using welfare spending as they see best; this may not be the case with in-kind transfers.</p>	<p>Conspicuous spending Households, especially male members, may spend this additional income on wasteful activities.</p> <p>Moral hazard (reduction in labour supply) A minimum guaranteed income might make people lazy and opt out of the labour market.</p>

³ The Former Greek Finance Minister Yannis Varoufakis argues that since wealth in society is always produced collectively, a UBI must be financed not from taxation but as a share of society’s capital (Project Syndicate, 2016).

⁴ Or, as we argue later, at the very least – quasi-universal, covering most households.

Better targeting of poor

As all individuals are targeted, exclusion error (poor being left out) is zero though inclusion error (rich gaining access to the scheme) is 60 percent⁵.

Insurance against shocks

This income floor will provide a safety net against health, income and other shocks.

Improvement in financial inclusion

Payment – transfers will encourage greater usage of bank accounts, leading to higher profits for banking correspondents (BC) and an endogenous improvement in financial inclusion.

Credit – increased income will release the constraints on access to credit for those with low income levels.

Psychological benefits

A guaranteed income will reduce the pressures of finding a basic living on a daily basis.

Administrative efficiency

A UBI in place of a plethora of separate government schemes will reduce the administrative burden on the state.

Gender disparity induced by cash

Gender norms may regulate the sharing of UBI within a household – men are likely to exercise control over spending of the UBI. This may not always be the case with other in-kind transfers.

Implementation

Given the current status of financial access among the poor, a UBI may put too much stress on the banking system.

Fiscal cost given political economy of exit

Once introduced, it may become difficult for the government to wind up a UBI in case of failure.

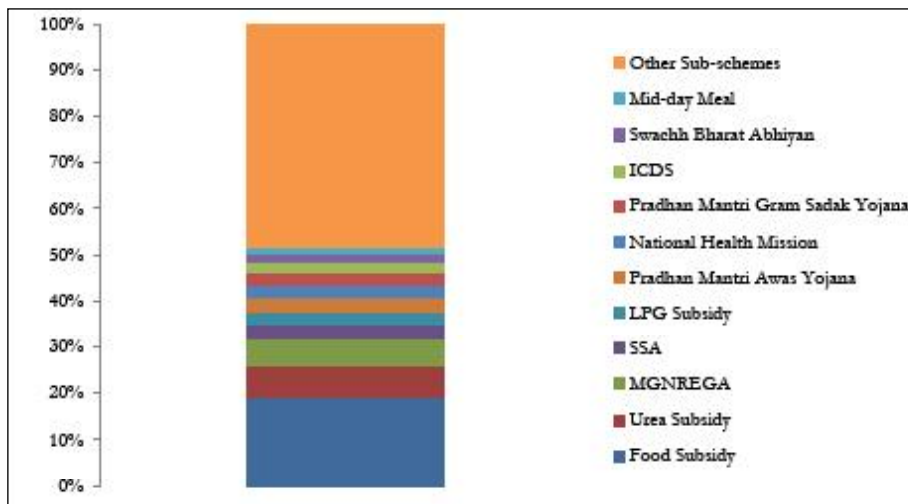
Political economy of universality – ideas for self-exclusion

Opposition may arise from the provision of the transfer to rich individuals as it might seem to trump the idea of equity and state welfare for the poor.

Exposure to market risks (cash vs. food)

Unlike food subsidies that are not subject to fluctuating market prices, a cash transfer's purchasing power may severely be curtailed by market fluctuations.

Figure 1. Centrally Sponsored and Central Sector Sub-schemes by Budget Allocation, 5.2% of GDP (2016-17)



Source: Budget 2016-17

⁵ Later in the chapter, we define the poor as constituting the bottom 40 percent (in terms of consumption expenditure) of the population. Since a UBI is universal, the top 60 percent of the population will also gain access to the UBI, which, in turn, makes the inclusion error at 60 percent.

9.10 The first striking fact is the sheer number of schemes and programs run by the government. The Budget for 2016-17 indicates that there are about 950 central sector and centrally sponsored sub-schemes in India accounting for about 5 percent of the GDP by budget allocation (Figure 1). A large majority of these are small in terms of allocation with the top 11 schemes accounting for about 50 percent of total budgetary allocation. As is seen in Figure 1, Food Subsidy or Public Distribution System (PDS) is the largest programme followed by Urea Subsidy and the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). The other programs include Crop Insurance, Student Scholarships, National Handloom Development Programme etc. One must acknowledge though that many of these schemes have diverse benefits beyond immediate poverty reduction – for instance, student scholarships have inter-generational consequences for individuals.

9.11 If the states were included, the number of schemes would be orders of magnitude larger. Moreover, schemes persist. Last year's Survey documented that most of the central sector schemes were ongoing for at least 15 years and 50 percent of them were over 25 years old.⁶

9.12 Even leaving aside their effectiveness, considerable gains could be achieved in terms of bureaucratic costs and time by replacing many of these schemes with a UBI.

9.13 But the most important question relates to the effectiveness of existing programme in helping the poorest. Here, this chapter provides some new evidence.

9.14 Consider the largest 7 central welfare schemes, PDS—food & kerosene, MGNREGS,

the Sarva Shiksha Abhiyaan (SSA), the Mid Day Meal (MDM) scheme, the Pradhan Mantri Gram Sadak Yojana (PMGSY), the Pradhan Mantri Awas Yojana (PMAY) and the Swachh Bharat Mission (SBM). Using program administrative data (2015-16) and data available from household level surveys (National Sample Survey, NSS and India Human Development Survey, IHDS) for 2005-06 and 2011-12, estimates of the targeting efficiency of programmes are provided.

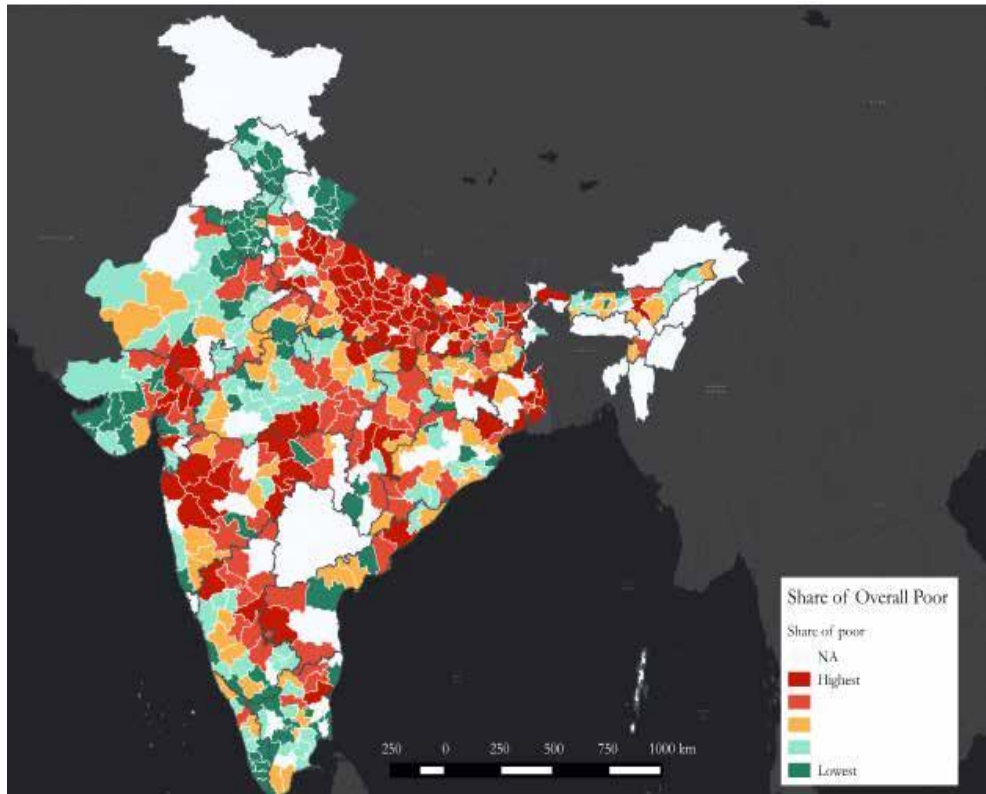
A Misallocation of resources across districts

9.15 Consider the evidence on misallocation of the government's resources. Misallocation captures the fact that the poorest areas of the country often obtain a lower share of government resources when compared to their richer counterparts.

9.16 The two graphs below provide new evidence on the extent of misallocation across districts for the six top welfare programs - the PMAY, SSA, MDM, PMGSY, MGNREGS and SBM. Figure 2a is a heat map that conveys the share of the overall poor living in each district for 2011-12: the darker the shade of red, the greater the number of poor in the district. Figure 2b plots, for each district, the shortfall between the share of the overall spending on the top six schemes (2015-16 data) and the share of the overall poor (i.e. Difference = Share of overall spending – share of overall poor). The difference is a measure of misallocation: ideally, the difference should be zero – a district with 20 per cent of the overall poor should have 20 per cent of the total spending (yellow-coloured districts in the figure 2b). A positive difference (indicated in green) indicates that a district receives a greater share of resources than its

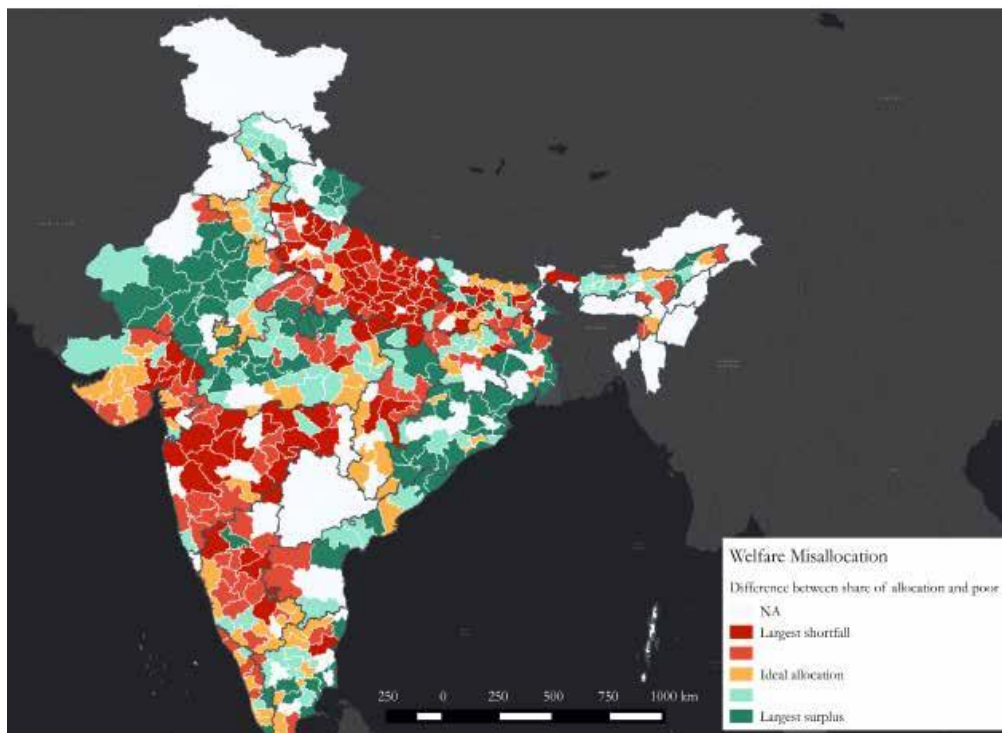
⁶ There is scheme that is 96 years old called 'Livestock Health & Disease Control' under the Department of Animal Husbandry, Dairying and Fisheries. In the Union Budget 2015-16, it was allocated INR 251 crores.

Figure 2a. Share of Poor across districts



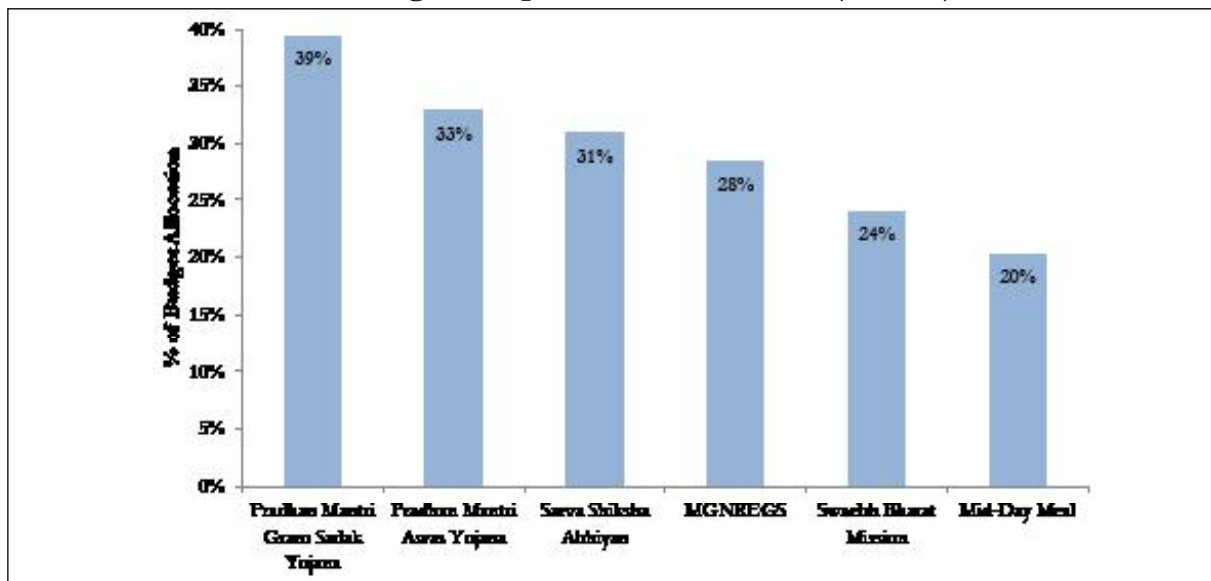
Source: NSS 2011-12, Survey Calculations

Figure 2b. Misallocation - Shortfall in Allocation to Poor



Source: Programme administrative data and NSS 2011-12, Survey Calculations

Figure 2c. Share of Budget Allocation of Backward Districts accounting for 40 percent of Total Poor (2015-16)



Source: Program Administrative data, Survey Calculations

actual share of poor. A negative difference, on the other hand, implies inadequate spending on the poor in districts. Again, the darker the shade of red, the more negative is this difference. What is striking about the two figures is that, in many cases, the poorest districts are the ones grappling with inadequate funds – this is evidence of acute misallocation. Many districts in Uttar Pradesh, Bihar, Chhattisgarh, parts of Jharkhand, eastern Maharashtra, Madhya Pradesh and Karnataka, among others, account for a large share of the poor and receive a less-than-equal share of resources (across the two maps, these districts are consistently red). Some parts of Orissa and Rajasthan, on the other hand, comprise a large share of the poor, but receive more-than-proportional share of the spending on top six schemes.⁷

9.17 To quantify the intuition on

misallocation provided above, we define a metric of misallocation which is the proportion of state’s funds allocated to the backward districts—these are districts that have the highest proportion of poor and which together account for 40 percent of the poor. Figure 2c charts the allocation of funds in 2015-16 to the backward districts under the same set of schemes. As can be seen, the allocations are regressive: under no scheme do these poorest districts receive 40 percent of the total resources – in fact, for the MDM and SBM, the share is under 25 percent (Appendix 1 charts a pair of heat-maps that further emphasise this point: it contrasts head-count-ratios and spending per poor across districts; it also provides detailed charts on misallocation across individual schemes).

9.18 One major explanation for misallocation is state capacity – resources

⁷ The colours map ordinal rankings (quantiles) of the share of poor and the difference between the share of allocation and the share of poor. The share of each district’s poor in overall poor is calculated using NSS 2011-12. The NSS is not representative at the district level, but it is felt that while the absolute magnitudes of district-level consumption may be different from the true means, the ordinal rankings may not be that different from a representative dataset. The heat-map comprises 434 districts – the data for the remaining districts was unavailable.

Box 1. A BRIEF HISTORY OF TARGETING

An immediate and intuitively appealing solution to the fiscal costs of UBI is to make it a targeted basic income scheme, attempting to guarantee a basic income to only the poor and the deserving. However, India's record of targeting welfare programmes to the poor has been suspect. Targeting commenced with the drawing up of lists of poor based on self-reported income in 1992 with subsequent survey rounds done with different – and more multi-dimensional – identification criteria in 1997 and 2002. Even the 2002 list of criteria for identifying BPL households, considered to be more rigorous than either of the previous rounds of surveys came under criticism from many sides. Studies – and government audits – showed data manipulation and corruption, with the crowding out of the poor and the truly deserving from BPL card ownership and leakages to the rich. Targeting was both inefficient and inequitable, a license to fraud that spawned an entire ecosystem of middlemen and petty abuse. Recognizing this, the government of the day attempted to measure poverty using an easily identifiable list of criteria and a simple scoring methodology through the Socio-Economic Caste Census (2011). Simultaneously, acknowledging the inherent problems with targeting, individual states- like Tamil Nadu and Chhattisgarh - universalized access to the PDS and a few other government schemes. The National Food Security Act (2013), in a clear break away from targeting to a minority of the population, mandated access to the PDS to nearly 70 percent of all households, choosing to exclude only the identifiably well-off. This gradual move towards greater inclusion error in order to avoid exclusion issues is directly in line with Gandhiji's talisman – the poorest are the ones who benefit the most from such a move. There is some empirical evidence to back this: Himanshu and Sen (2013) document a negative relationship between quantum of leakages and PDS coverage – in other words, the higher the coverage, the lower the leakages.

allocated to districts are often a function of the district's ability to spend them; richer districts have better administrative capacities to effectively implement schemes.

9.19 There have been some improvements in district-wise allocation for schemes in the recent past, perhaps reflecting improvements in state capacity. The share of budget allocation to the poorest districts has increased from 32 percent to 33 percent (3.1 percent increase) for the PMAY. Similar increases may have occurred in other schemes.

B. Consequences of Misallocation: Exclusion of genuine beneficiaries

9.20 Misallocation has repercussions for targeting of resources to the poor. A natural consequence of misallocation is what has been described in the literature as “exclusion error” – genuine poor find themselves unable

to access programme benefits. If a state or a district with more poor is allocated very little resources, then it is almost certain that some deserving households would be excluded⁹. For instance, consider the states of Bihar, Madhya Pradesh, Rajasthan, Orissa and Uttar Pradesh: despite accounting for over half the poor in the country, these states access only a third of the resources spent on the MGNREGS¹⁰ in 2015-16. This almost certainly implies that some deserving individuals are left out. An estimate of the exclusion error from 2011-12 suggests that 40 percent of the bottom 40 percent of the population are excluded from the PDS¹¹. The corresponding figure for 2011-12 for MGNREGS was 65 percent (see Appendix 2 for detailed calculations of leakages for PDS and MGNREGS for 2011-12).

9.21 While substantial improvements in targeting efficiency are required from the 2011-12 levels, it may be useful here to

⁹ Alternatively, this could imply that the per capita benefits is lower in these districts than other districts.

¹⁰ Technically speaking, there is no exclusion error under the MGNREGS, since it is universal. It is a self-targeted programme: at least on paper, the scheme is demand-driven and anybody willing to work on the scheme for the wage prescribed is, as per law, allowed to avail themselves of up to 100 days of work.

¹¹ This is the weighted average of the exclusion errors for rice, wheat and kerosene.

Box 2. Improvements in MGNREGS since 2014-15

The MGNREGS program has evolved over the last two years to increase its focus on creation of durable assets, diversification of livelihood opportunities, selection of public works in congruence with other infrastructure programs such as PMGSY and PMAY-Grameen and a greater thrust on natural resource management and agriculture & allied activities. This is expected to improve farmers' income and enlarge their wage opportunities.

The programme is self-targeted. Often those who belong to deprived households and depend on casual labour are beneficiaries. The program also provides a higher number of days of employment (150 days instead of 100 days) in drought affected areas.

Technological and programmatic improvements have been made in the last two years:

- MGNREGS job cards for 10.9 crore active workers was digitalized, of which 8.7 crore workers had their job-cards seeded with Aadhaar
- 4 crore workers were brought into the Aadhaar payment bridge
- Nearly 39 lakh MGNREGS assets were geotagged since September 2016. These were provided publicly to improve accountability and transparency
- 95 percent of MGNREGS wages were paid into beneficiary accounts, thereby, reducing scope for out-of-system leakage of wage payments
- About 68 percent of active job cards were also verified and updated

As a result, the number of completed works has increased from 25-30 lakhs (yearly average since inception) to 48 lakhs in the current year. 70 percent of these works is in Agriculture & Allied activities (an increase from 50 percent in 2013-14). Additionally participation of women in MGNREGS increased from 40 percent in 2006-2007 to 56 percent in 2016-17.

acknowledge the improvements made in tackling exclusion errors in two of India's largest social sector schemes, the PDS and MGNREGS. Box 1 summarizes evidence on the problems with targeting and the move towards expanding the PDS across states in the country. This is likely to have reduced exclusion error and even out of system leakages. Himanshu and Sen (2013) estimate that leakages in the PDS has reduced from 54 percent to 34.6 percent - a drop of nearly 20 percentage points in seven years (from 2004 to 2011). Linearly extrapolating to 2016, out of system leakage for the PDS overall could have reduced further to 20.8 percent¹². Even this figure may be an underestimate since it does not account for improvements in

technology and expansion of coverage that have occurred in the past five years. Some surveys show that the share of PDS subsidy received by the bottom 40 percent may have increased significantly since 2011-12. A 3600 household survey across six states¹³ in India estimated the average percentage of PDS foodgrains received by beneficiaries (as a percentage of entitlements) at 92 percent for 2016¹⁴.

9.22 Similarly, the MGNREGS has changed considerably in the recent past. Box 2 summarizes the improvements in monitoring technology, asset creation and job provision that has occurred in the scheme over the past 2 years.

¹² This figure somewhat resembles the leakages estimate from a survey done across 10 states (20 %) in 2013 (PEEP survey, 2013).

¹³ (Chattisgarh, Odisha, Bihar, Jharkhand, Madhya Pradesh and West Bengal)

¹⁴ Dreze et al (2016).

V. HOW CAN A UBI OVERCOME THESE ISSUES?

9.23 *Misallocation to districts with less poor:* The UBI, by design, should effectively tackle issues related to misallocation. As envisaged in this chapter, a UBI will simply amount to a transfer of resources from above¹⁵ and need not be “accessed” by beneficiaries¹⁶. The simplicity of the process cannot be overstated: beneficiaries are simply required to withdraw money from their accounts as and when they please, without having to jump through bureaucratic hoops. The simplicity of the process also implies that the success of a UBI hinges much less on local bureaucratic ability than do other schemes. In addition, by focusing on universality, UBI reduces the burden on the administration further by doing away with the tedious task of separating the poor from the non-poor.

9.24 *Out of system leakage:* Conceptually, a UBI reduces out of system leakage because transfers are directed straight to the beneficiaries’ bank accounts. The scope for diversion is reduced considerably, since discretionary powers of authorities are eliminated almost wholly¹⁷. Furthermore, UBI’s expanded coverage will likely impact out of system leakage since the state is answerable to a larger section of its citizens. Finally, given the fewer avenues for leakages, monitoring a UBI would be easier than many other schemes.

9.25 Last mile concerns remain, however. Beneficiaries still need to access their bank accounts, either at local bank or post

office branches or through BCs. Section VII describes the last mile issues in detail. Eventually, the JAM system could be used to provide funds to each individual directly into his or her account (see Section X D for current penetration of Jan Dhan and Aadhaar seeded accounts).

9.26 *Exclusion error:* Given the link between misallocation and exclusion errors, a UBI that improves allocation of resources should mechanically bring down exclusion error. Furthermore, by virtue of being universal, exclusion errors under the UBI should be lower than existing targeted schemes (for reasons listed previously – see Box 1)¹⁸.

VI. INSURANCE AGAINST RISK AND PSYCHOLOGICAL BENEFITS

9.27 Poor households (in fact even many of those above poverty) are often faced with idiosyncratic shocks such as bad health and job loss, and covariate or aggregate shocks such as natural disasters and political risk. A study finds that the poverty component of vulnerability (risk of sudden income/consumption shortfalls) dominates the idiosyncratic and aggregate components (Swain and Floro 2008), contributing as much as 80 percent to total vulnerability. Jha, Nagarajan and Pradhan (2012) show that slightly more than 50 percent of rural households across India face one or more forms of shock, with the most prominent being aggregate shocks (crop loss, water borne diseases, loss of property, cyclones, drought, etc.). In their data, about 60 percent of individuals use personal savings to cope

¹⁵ More details on fiscal space and Center-State negotiations in Section X D

¹⁶ A functional JAM system will provide direct benefits into the bank accounts of beneficiaries.

¹⁷ There is some recent evidence showing the impact of direct transfers on reduced corruption in government schemes in India. See Banerjee et al (2016), Niehaus et al (2016).

¹⁸ A UBI could result in a different set of causes for exclusion related to errors in authentication of individuals – see section IX.d for current status of Aadhaar authentication.

with these shocks. Government assistance comes a distant second with only close to 10 percent of individuals accessing it. The third most prominent option, at 6 percent, is borrowing from friends. In the face of such prominence of shocks, a guaranteed basic income can provide a basic form of insurance.

9.28 Additionally, there are potential psychological benefits to be made from having a UBI. The World Development Report (2015) argues that individuals living in poverty have (a) a preoccupation with daily hassles and this results in a depletion of cognitive resources required for important decisions; (b) low self-image that tends to blunt aspirations; (c) norms that may require investments in social capital to the detriment of private opportunities.

9.29 There is evidence for all of the above: Mani and others (2013) showed that pre-harvest cash-strapped sugarcane farmers in Tamil Nadu performed worse in a series of cognitive tests (including 10 points lower on an IQ test) than they did after harvest, when they were likely to have very little loans and were cash-rich. This finding is replicated in diverse settings by various authors.

9.30 A natural consequence of lower cognitive bandwidth is bad decision-making in the face of poverty, begetting more poverty. In fact, Haushofer and Shapiro (2015) study an unconditional cash transfer programme in Kenya and find that there is a significant increase in the psychological wellbeing of recipients measured in terms of happiness, life satisfaction and stress. An assured income could relieve mental space that was used to meet basic daily consumption needs to be used for other activities such as skill

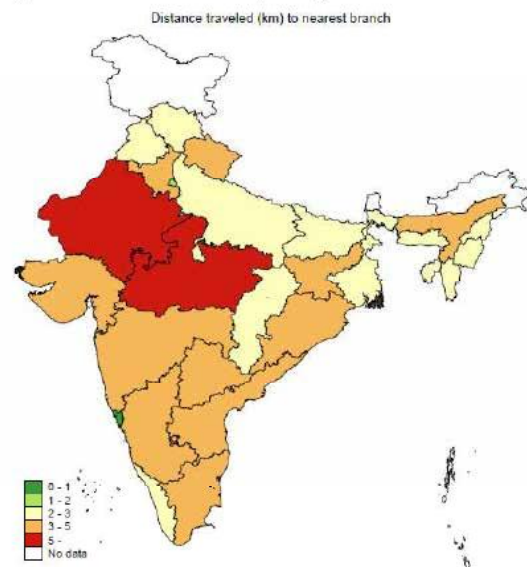
acquisition, search for better jobs etc.

VII. IMPROVED FINANCIAL INCLUSION

A More profitable for Banks¹⁹

9.31 Calculations suggest that A UBI of INR 12000 per adult per year is expected to reduce the average distance from the nearest business correspondents to 2.5 km from 4.5 km at about half the UBI amount. This effect is even larger since a UBI is targeted at all individuals, not only adults.

Figure 3. Distance to nearest banking access point



Source: Financial Inclusion Insights 2015

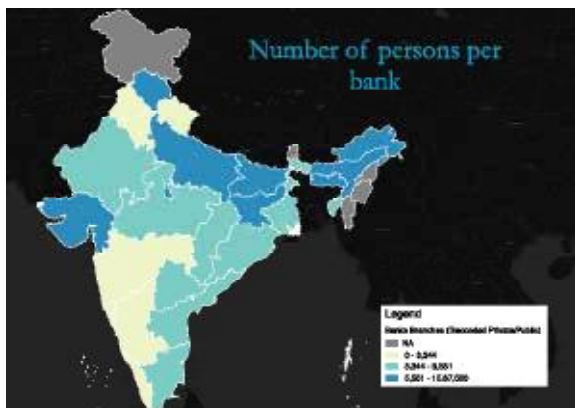
9.32 Financial inclusion in India has progressed substantially since the PradhanMantri Jan DhanYojana (PMJDY). According to Financial Inclusion Insights (FII – 2015), while ownership of bank accounts has increased to about 2/3rd of all adults in India, active use²⁰ has increased to about 40 percent. Geographically, most of the country has over 50 percent of adults owning banking accounts with Madhya

¹⁹ Based on inputs from the Gates Foundation.

²⁰ At least one transaction completed in the last 90 days

Pradesh, Chhattisgarh, Bihar and some Northeast states doing less well. In terms of active use, though, most states perform less well with a majority of them having less than 50 percent active accounts. Digging a little deeper, active use is higher amongst males, in urban areas and for those above the poverty line. We look at two constraints to active use: one, physical distance separating people from these bank branches; two, number of persons per bank.

Figure 4. Number of persons per bank (2016)



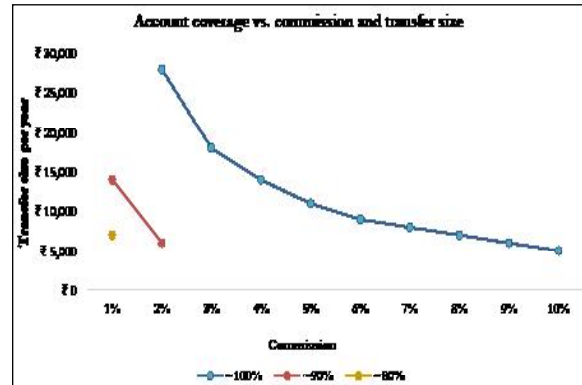
Source: GOI

9.33 Distance: Figure 3 shows that for 2015 in a majority of states people are 3-5 km away from any form of access point (bank branches, ATMs and BCs). Madhya Pradesh and Rajasthan have persons traveling over 5 km to access formal financial services. Surprisingly, the relatively poor states of UP and Bihar (in addition to Chhattisgarh) seem to be doing better than average – with people living closer to the banks. This could merely be a function of high population density, as the next paragraph explains.

9.34 Persons per bank: Figure 4 plots the number of persons per bank aggregated at the state level for the current year. The higher this number, the more the burden on the banking system – in other words, this number serves as an indicator of the size of the average bank’s “catchment population”.

Here, Madhya Pradesh, Assam, Arunachal Pradesh, Meghalaya, Himachal Pradesh, Andhra Pradesh, along with the densely populated states of UP and Bihar do worse than average.

Figure 5. Financial Inclusion, Transfer size and BC commission per capita



Source: Gates Foundation Calculations

9.35 Taken together, the two graphs point to the fact that despite tremendous improvements in banking coverage, there is still some way to go before financial access to all poor is achieved.

9.36 On the payments side, improving financial inclusion is both a demand and supply side challenge. While on the demand side, there is a need for behavioral change on the part of account holders so that they use their accounts more often, on the supply side, banks need to find it profitable to provide access to banking services. Increasingly, banks have been making use of BCs to provide last mile access to banking. A Taskforce on an Aadhaar-Enabled Unified Payment Infrastructure recommended increasing commissions to BCs in order to make them profitable. This profitability is highly dependent on the volume of transactions per BC, and one can model scenarios where a UBI can lead to increased financial inclusion through an increased number of transactions. A very plausible hypothesis is that as a UBI is provided to individuals, there will be an endogenous

increase in the volume of transactions and revenue from government transfers along with a corresponding decrease in per unit fixed costs, thereby increasing the profitability of BCs and expanding their coverage.

9.37 Figure 5 visually represents these scenarios: it can be seen that to achieve universal financial inclusion (access to a BC), transfers can be as low as INR 4800 per capita per year though commissions need to be high at 10 percent. A higher UBI would in turn require a lower commission. Equivalently, at 90 percent financial inclusion, an increase in transfer from INR 4800 per capita per year to INR 12000 per capita per year can lead to a reduction in the distance between an account holder and the nearest BC from 4.5 km to 2.5 km. As can be seen, even at a commission level of 1 percent a higher UBI can dramatically improve financial inclusion.

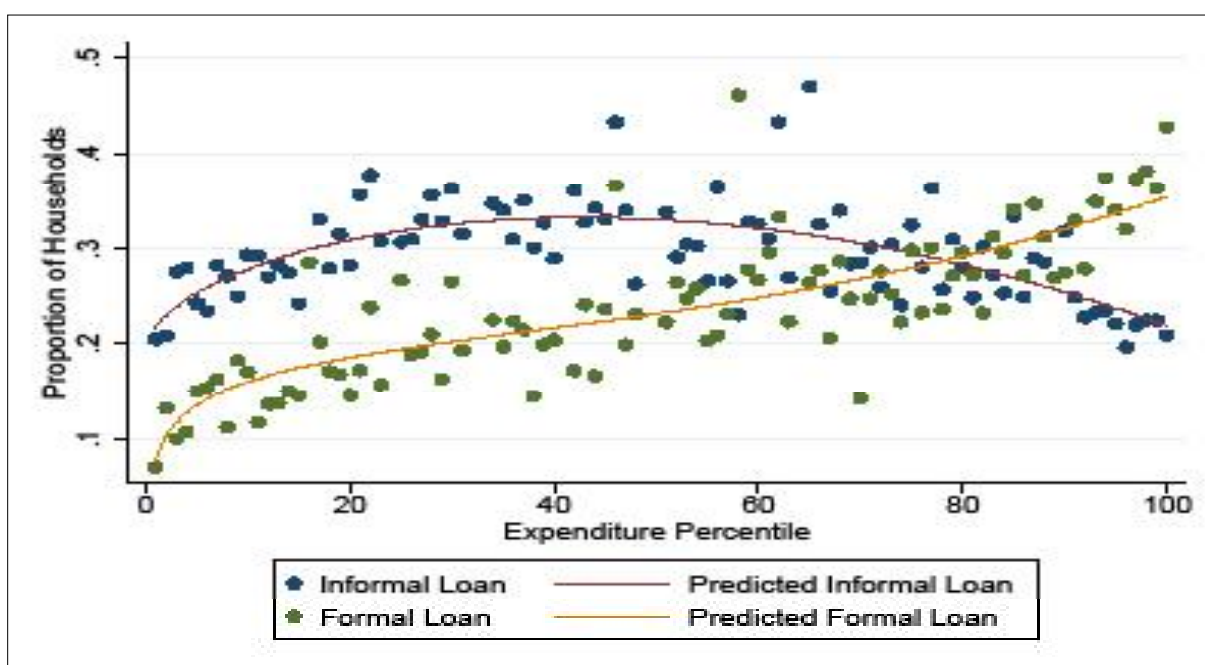
B Access to Formal Credit

9.38 A UBI can potentially also unlock

credit constraints in the form of a higher income. Using recently released data for farmers from the Debt and Investment Survey (2013), it is evident that as one moves along the consumption spectrum, the proportion of farmers taking informal loans falls and formal loans take over (Figure 6). While the trend in proportion of farmers as well as average loan sizes is smooth across percentiles, the trend in median loan amounts shows a discontinuity at the 78th percentile – from median loans being zero till this level, there is sudden increase in median amounts for formal loans (Figure 7). Such a discontinuity implies that if everybody’s consumptions could be increased to this level, there might be significant jump in access to formal credit.

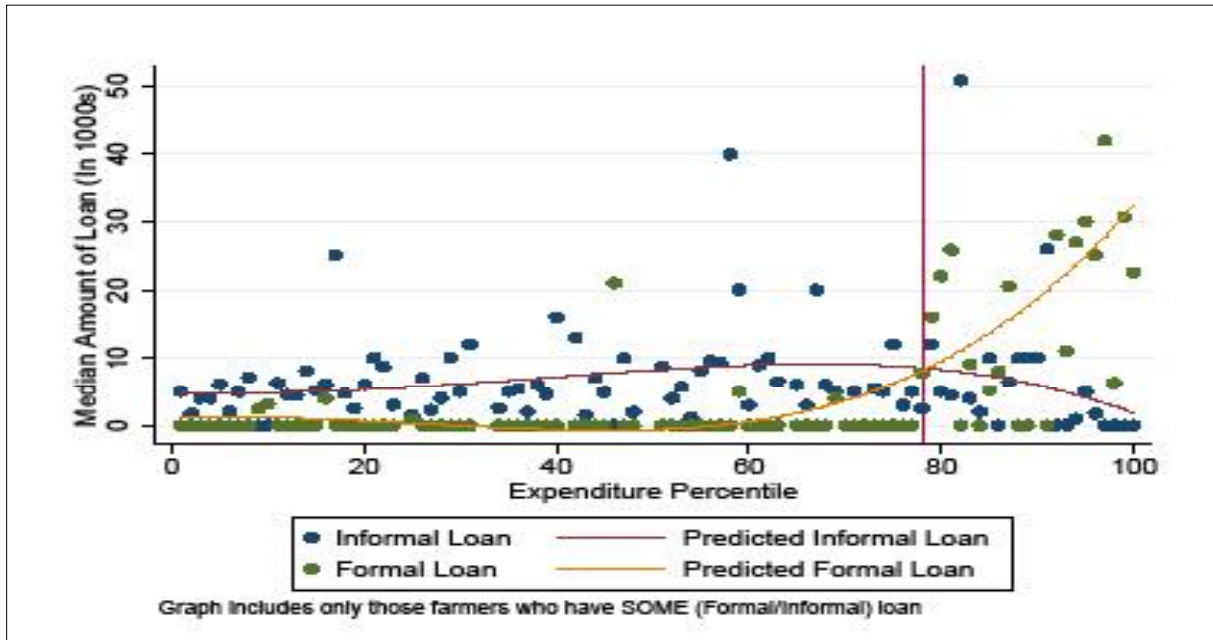
9.39 Figure 8 builds a scenario chart of UBI amounts and probability that anybody below the 78th percentile (INR 90000 per household per year) will cross this threshold as a result of UBI. It shows that as the UBI amount increases the probability of

Figure 6. Rise of Formal Banking with Expenditure



Source: Debt and Investment Survey, NSS 2012-13, Survey Calculations

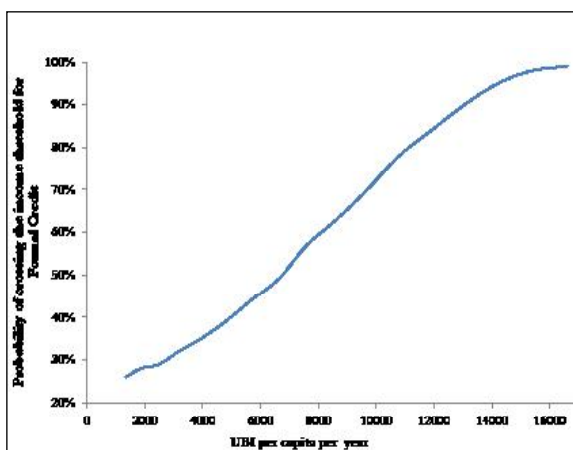
Figure 7. Median loan amount by expenditure percentiles



Source: Debt and Investment Survey, NSS 2012-13, Survey Calculations

releasing the credit constraint imposed by consumption expenditure falls²¹. A caveat to this finding though is that this income threshold (78th percentile) itself might get pushed up as a UBI is universal in nature, dampening the effect of UBI on releasing credit constraints.

Figure 8. Probability of releasing credit constraints and UBI

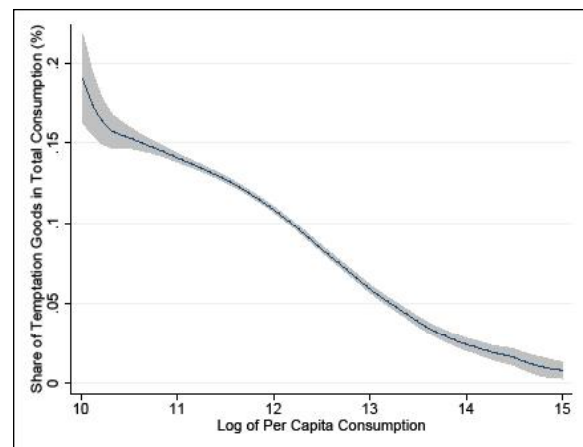


Source: Survey Calculations

²¹ This is a descriptive statement, not a causal one: it could very well be the fact that people who are above the 78th percentile are there because they have different financial habits (including savings and borrowing), so moving people up to that level may not result in this jump.

VIII. TEMPTATION GOODS: WOULD A UBI PROMOTE VICE?

Figure 9. Temptation Goods vs Consumption Expenditure



Source: NSS 2011-12, Survey Calculations

9.40 Detractors of UBI argue that, as a cash transfer programme, this policy will promote conspicuous spending or spending on social evils such as alcohol, tobacco etc. Literature

shows that there is a general perception that cash transfers get spent on these 'temptation goods' (Moore 2009, Ikiara 2009 and Devereux 2002). This is indeed a crucial point especially if UBI is expected to replace other in-kind programs such as PDS. The NSS 2011-12 data is employed to explore this argument. One can define consumption on alcohol, tobacco and paan as consumption on 'temptation goods'. The main finding is that these goods form a smaller share of overall budget/consumption as overall consumption increases (Figure 9). This provides an indication that an increase in income from UBI alone will not necessarily lead to an increase in temptation goods consumption. This is in line with Evans and Popova (2016) who undertake a meta-analysis of 30 studies that evaluate the impact of transfers on the consumption of temptation goods. Appendix 3 provides some evidence for the same in the Indian context.

IX. MORAL HAZARD: WOULD A UBI REDUCE LABOUR SUPPLY?

9.41 Another argument against UBI is the moral hazard one propounded by Gandhiji against charity - free money makes people lazy and they drop out of the labour market. The simplest explanation is that unlike in-kind programmes, cash transfers (conditional and unconditional) raise the income of households for each unit of labour it already supplies and so can afford to reduce labour without necessarily affecting the household's income. As plausible as this might seem on paper, things do not seem to play out in this manner in reality.

9.42 Banerjee, Hanna, Kreindler and Olken (2015) conduct a meta-analysis of 7 randomized controlled trials of government cash transfer programs in 6 developing countries (Honduras, Morocco, Mexico, Philippines, Indonesia and Nicaragua).

Appendix 4 provides a summary of these studies from the paper. Most of these are conditional cash transfer type of programs and form between 4 percent (Honduras) and 20 percent (Morocco) of household consumption. They find no significant reduction in labour supply (inside and outside the household) for men or women from the provision of cash transfers. This finding is also in line with that of Alzua, Cruces and Ripani (2010) where they find non-significant, small and negative effects of three Latin American programs on adult employment.

9.43 Within the Indian context Appendix 3 provides evidence on a similar non-impact of UBI on labour supply from a modified randomized control trial conducted in a few villages in Madhya Pradesh, India.

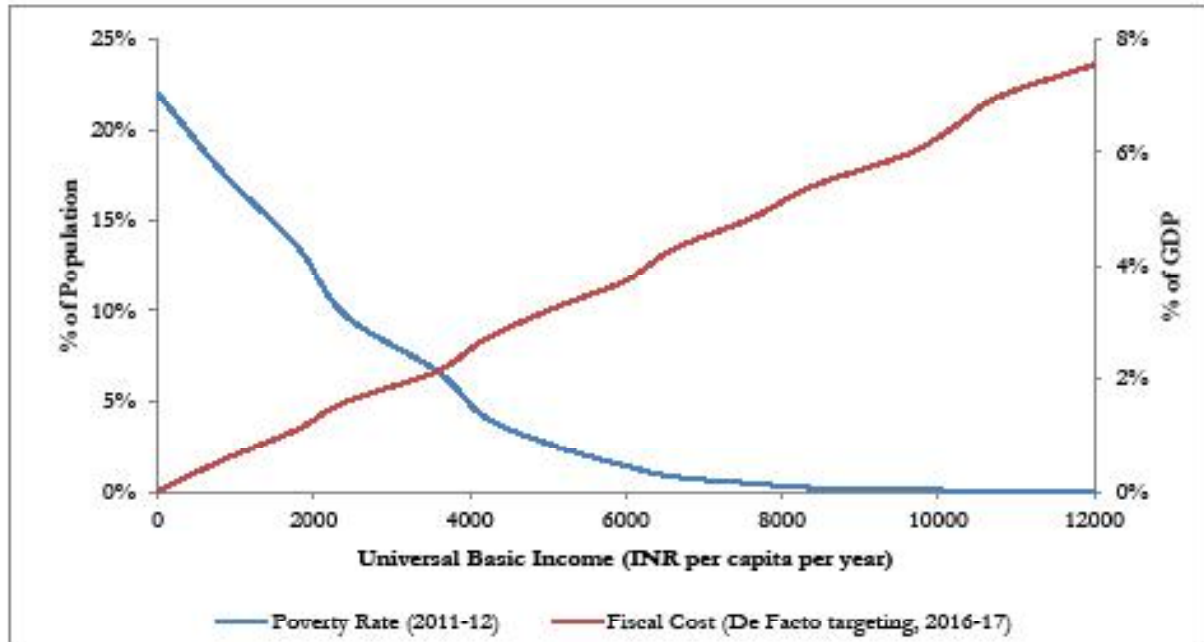
X. THE WAY FORWARD

9.44 The irresistible force of even as powerful an idea as UBI will run into the immovable object of a resistant, pesky reality. So, what is the way forward, always remembering that the yardstick for assessment is not whether UBI can be perfect or faultless but only whether it can improve substantially upon the status quo?

A Poverty reduction and illustrative fiscal cost calculations:

9.45 What would a UBI potentially cost? This is not an easy calculation because it depends on a number of objectives and assumptions. This is described carefully in the following manner.

9.46 Based on the 2011-12 distribution of poverty it seems clear that going from a certain very low level of poverty to eliminating it will be prohibitively high (in Figure A4 in Appendix 5, the cumulative probability distribution of consumption is flat from about 0 percent of poverty to 0.45 percent). So, a target poverty level of

Figure 10. Implications of the UBI and its effect on poverty and vulnerability

Source: NSS 2011-12, Budget 2016-17, Survey Calculations

0.45 percent is chosen. Then the 2011-12 consumption level is computed for the person who is at that threshold. The next calculation is the income needed to take her above INR 893²² per month²³, which is the poverty line in 2011-12. This comes to INR 5400 per year. Subsequently, that number is scaled up for inflation between 2011-12 and 2016-17: this yields INR 7620 per year. This is the UBI for 2016-17. For reasons explained later, the survey assumes that in practice any program cannot strive for strict universality, so a target quasi-universality rate of 75 percent is set (this is later referred to as de facto UBI). The economy-wide cost is then the UBI number multiplied by 75 percent. This yields a figure of 4.9 percent of GDP.²⁴

9.47 One important point to note. This UBI calculation does not require any assumption about the poverty headcount rate. It only requires consumption data on the marginal poor (the person at the 0.45 percent threshold) and the poverty line. Figure 10 shows UBI for various target poverty levels and corresponding fiscal costs.

9.48 The calculation assumes that private consumption has not changed at all implying that real income of the poor at the threshold poverty level of 0.45 percent in 2016-17 has not increased in real terms since 2011-12. This is unlikely to be true. Thus, the actual cost of a UBI to the government could be lower. If, for example, the real income of that marginal poor grew at the same rate

²² This is the population weighted average of the state-wise rural and urban Tendulkar poverty lines for 2011-12.

²³ The Tendulkar poverty line is calculated based on NSS 2011-12 consumption data – it must be said that the line is somewhat notional and one must be careful before making a value judgement on the adequacy of the line to measure well-being.

²⁴ In Appendix 5, an alternative way of costing the UBI based on the marginal benefits of poverty and vulnerability reduction is discussed.

²⁵ There is already some evidence of centre-state bargaining for DBT in the PDS. See, here: <http://www.financialexpress.com/market/commodities/puducherry-asks-for-increase-in-rice-subsidy-to-dbt-beneficiaries/399995/>

as overall GDP per capita (which would be about 2 percent per year), the UBI amount will decline to INR 6540 per capita per year, costing 4.2 percent of GDP.

9.49 Since these calculations are based on 2011-12 consumption data projected forward, the implicit assumption is that UBI will be additional to the poor's existing consumption which includes consumption from public programs (PDS, MNREGA, etc.). Is this reasonable or plausible?

9.50 On the one hand, a case could be made that if current programs are prone to exclusion error, which is likely to affect the poorest amongst the poor to a greater extent, then this methodology is not unreasonable.

9.51 However, there will be cases where PDS or fertilizer subsidies do reach most beneficiaries which will then have to be taken into account if a measure of UBI as a replacement program is to be calculated. This is a complicated task because there will be a number of general equilibrium effects which will need to be considered. For example, replacing the PDS will increase market prices of cereals the poor face. Similarly, phasing down MGNREGS might reduce market wages for rural casual labour. Calculating these effects and hence the exact magnitude of subsidies will help refine any costing of the UBI.

9.52 However, as discussed earlier the UBI is likely to be more effective than existing programs in reducing misallocation, leakage and exclusion errors. In that case, the prior would be that not accounting for replacement would still not seriously affect the costing of UBI. After all, replacing one rupee of the fertilizer subsidy should require a compensating UBI of less than one rupee.

9.53 The process of determining a UBI amount is not a one-time exercise: as the UBI is a cash transfer, its 'real' value tends to be determined by inflation in the economy. Over time, the same amount of cash transfer may not buy the same amount of goods. It is, therefore, important to index it to prices such that the amount gets revised periodically. Politics can play a huge role in determining the exact amount each time it is up for revision²⁵ and so it is important to set up a sufficiently politically neutral mechanism to do so. Ray (2016) proposes setting UBI as a constant share of the GDP to overcome this complication.

B Where is the fiscal space to finance a UBI?

9.54 Table 2 below presents the costs to the centre of running various welfare programmes and provision of services. Any government will have to decide on what programmes/expenditures to prioritize in order to finance a UBI. The lowest rungs of the table are presented for completeness, and it may not be advisable to replace these. In other words, while a UBI may certainly be the shortest path to eliminating poverty, it should not become the Trojan horse that usurps the fiscal space for a well-functioning state.

9.55 The first few rows of Table 2 are the subsidies for the non-poor/middle class households, equivalent to about 1 percent of GDP²⁶. Next listed are the government subsidies that account for 2.07 of the GDP (2014-15 actual)²⁷. The corresponding figure for the states in 2011-12 is 6.9 percent (Sudipto and Sikdar 2017). Among these, as table 2 shows, the subsidies for fertilizer, petroleum and food constitute the largest amounts. Previously, the chapter argues that

²⁶ These numbers are an update on the calculations made in Economic Survey 2015-16 (Chapter 6).

²⁷ There exists some double counting here – since, some proportion of the urea subsidy given to the middle class is accounted for in the rows above.

the government runs a plethora of schemes—the top ten centrally sponsored or central sector schemes (not including subsidies) cost the state about 1.4 percent of GDP (2014-15 actuals). The remaining 940-odd sub-schemes account for 2.3 per cent of the

GDP. Further below in the table, we list the other government expenditure: spending on education, health, pensions, police, defence and interest payments²⁸.

9.56 Here, it is clear that the magnitude of middle-class subsidies would be roughly

Table 2. Fiscal cost of existing Central Government programmes (2015-16)

Implicit Middle Class “Subsidies”²⁹ (percent of GDP)³⁰	Total
LPG	0.21
Railways-1 (only A/C)	0.01
Railways-2 (Sleeper Class)	0.07
Aviation turbine fuel	0.01
Fertilizer (Urea)	0.04
Personal Income-tax Exemptions	0.44
Interest Subvention Scheme for farmers	0.1
Mudra (Interest Subsidy)	0.11
Gold	0.08
SUB-TOTAL	1.05
Existing Social Sector Programmes/ Schemes (2014-15, percent of GDP)³¹	
Total Subsidy	2.07
-Fertilizer	0.57
-Petroleum	0.48
-Food	0.94
Schemes (Central Sector and Centrally Sponsored)	3.7
-Top ten Schemes ³²	1.38
Education	0.49
Medical, Public Health, Sanitation	0.1
Family Welfare	0.13
Grants to State and UTs	0.62
Pensions	0.75
Police	0.38
Defence	1.10
Interest Payments	3.22

²⁸ Here, again, there is some double-counting. This is a key reason we do not provide any aggregate figure. For instance, some of the expenditure under the head “education” is also considered in the spending of the top-ten central sector schemes. Similarly, for other heads like health and family welfare.

²⁹ See Appendix 8 for details on the way in we have calculated these subsidies, which incorporate the notion of tax revenue foregone.

³⁰ Some of the components of the tax revenue foregone are not included as: (1) corporate tax exemptions are going to be phased out gradually; (2) tax exemptions on import duties are not really reclaimable because many of these are related to India’s Free Trade Agreements which can not be repudiated ; (3) some of the current exemptions will be replaced under GST regime; and (4) moreover, it is possible that some of the current indirect tax exemptions benefit the poor.

³¹ There may be double counting. For e.g. implicit middle class LPG subsidy will also be included in total subsidy. Similarly, expenditure on education is also covered in centre’s expenditure on top ten schemes.

³² Budget estimate 2014-15

equal to the cost of a UBI of INR 3240 per capita per year provided to all females. This will cost a little over 1 percent of the GDP – or, a little more than the cost of all the middle-class subsidies. However, taking away subsidies to the middle-class is politically difficult for any government. It is clear that while the fiscal space exists to start a de facto UBI, political and administrative considerations make it difficult to do this without a clearer understanding of its larger economy-wide implications.

C Guiding Principles for Setting up a UBI

9.57 Conceptually, a well-functioning UBI can be designed. How should one go about attempting to implement the same in a country as vast and complex as India? There exist, when translating the idea into reality, tensions that tug in opposing directions: there is the pull of universality, the need to contain fiscal costs, the difficulty of exit from existing programmes and the need to introduce a system that is not beyond the admittedly constrained ability of the Indian state to implement things at scale.

9.58 Below are three principles that could help guide thinking in this direction.

i. De jure universality, de facto quasi-universality

9.59 If universality has powerful appeal, it will also elicit powerful resistance. The popular reaction to demonetization reveals a deep sense that the well-off gain from and game the current system to their advantage. In that light and keeping in mind fiscal costs, the notion of transferring even some money to the well-off may be difficult.

9.60 It is, therefore, important to consider ideas that could exclude the obviously rich i.e., approaching targeting from an exclusion of the non-deserving perspective than the current inclusion of the deserving perspective³³. And there are a number of possibilities here. Below, is a list of four:

1. Define the non-deserving based on ownership of key assets such as automobiles or air-conditioners³⁴ or bank balances exceeding a certain size.
2. Adopt a ‘give it up’ scheme wherein those who are non-deserving chose to opt out of the programme just as in the case of LPG and are given credit for doing so.
3. Introduce a system where the list of UBI beneficiaries is publicly displayed; this would “name and shame” the rich who choose to avail themselves of a UBI³⁵.
4. Self-targeting: Develop a system where beneficiaries regularly verify themselves in order to avail themselves of their UBI – the assumption here is that the rich, whose opportunity cost of time is higher, would not find it worth their while to go through this process and the poor would self-target into the scheme. The issue with an approach of this sort is that it conflicts with the essence of JAM, whose appeal lies in its direct, costless transfer of the state’s welfare subsidies to beneficiaries’ accounts.

ii. Gradualism

9.61 A guiding principle is gradualism: the UBI must be embraced in a deliberate, phased manner. A key advantage of phasing would be that it allows reform to occur incrementally – weighing the costs and benefits at every step. Yet, even gradualism

³³ This is not unlike the “exclusion criteria” envisioned in the National Food Security Bill (2013).

³⁴ One source of asset ownership is the Socio-Economic Caste Census data for rural households.

³⁵ This would, of course, have the additional benefit of ensuring that the poor can check if they are receiving benefits.

requires a roadmap. Here, below are different approaches of gradually adopting a UBI. The eventual goal of each approach is to inform the path towards a de facto UBI.

Choice to persuade and to establish the principle of replacement, not additionality

9.62 Rather than provide a UBI in addition to current schemes, it may be useful to start off by offering UBI as a choice to beneficiaries of existing programs. In other words, beneficiaries are allowed to choose the UBI in place of existing entitlements. This strategy has many advantages, beyond simply containing costs. It gives people agency, not only in that they have greater choice, but importantly because they have greater power in negotiating with the administrators who are currently supposed to be giving them benefits. This threat, expressed or latent, will then provide incentives to the administrators of existing programs to improve their performance. In the case of a fertilizer outlet, for example, the dealer knows that if he diverts the rice for his own purposes, he faces the threat of exit – beneficiaries will switch to a UBI. This, in turn, will reduce the quota of fertilizers allocated to his outlet.

9.63 Designed in this way, UBI could consequently not only improve living standards; it could also improve administration (and cut the leakage costs) of existing programs.

9.64 However, there are at least two concerns with the process listed above: one, by allowing the UBI as a choice over current entitlements, it reinforces all the current problems with targeting. This also ensures continuity of the misallocation problem³⁶

with richer districts having a greater access to welfare benefits; furthermore, those excluded from the system will be unable to give anything up to avail themselves of the UBI; those well-off who are currently (wrongly) included will continue to have the right to be included

9.65 Another problem is that this would be administratively cumbersome. Although arguably a one-time event, who, for instance, in the case of fertilizer subsidies identifies and compiles the lists of persons who have given up access? This would likely be another opportunity for corrupt actors.

UBI for women

9.66 Women face worse prospects in almost every aspect of their daily lives – employment opportunities, education, health or financial inclusion. Simultaneously, there exists plenty of evidence on both, the higher social benefits and the multi-generational impact of improved development outcomes for women. A UBI for women can, therefore, not only reduce the fiscal cost of providing a UBI (to about half) but have large multiplier effects on the household. Giving money to women also improves the bargaining power of women within households and reduces concerns of money being splurged on conspicuous goods. The UBI could also factor in children in a household to provide a higher amount to women. This addition, though, has three potential problems – one, it may not be easy to identify the number of children in a household; two, it may encourage households to have a greater number of children; and three, phasing out boys from beneficiary list once they reach a certain age (say 18 years) may not be easy to monitor and undertake.

³⁶ Another administrative question, specific to the PDS is the following: will it be financially viable for Fair Price Shop (FPS) dealers to run the PDS when volumes reduce because of the availability of choice?

³⁷ Indeed, the National Food Security Act mandates that all pregnant women receive INR 6000 during their pregnancy. The central government spending on pensions is INR 200 per month, and has not been updated in ten years.

³⁸ These states the special category states of J & K, Assam, Manipur, Mizoram, Nagaland, Arunachal Pradesh, Tripura, Sikkim, Himachal Pradesh, Uttarakhand.

Universalize across groups

9.67 Another approach is to phase in a UBI for certain vulnerable groups – widows, pregnant mothers, the old and the infirm – first. This would serve as a means for the state to make good of its promise – sometimes mandated by law – to support the most vulnerable³⁷. Furthermore, these are easily identifiable groups of individuals. Previous studies show that leakages in pensions are already low (Murgai et al 2010) and while the maternity benefits pilots suffer from implementation problems (Sinha et al (2016)), there is some evidence to show that they have helped smooth over medical costs for the poor.

9.68 However, as things stand today, there exist exclusion errors in both these schemes. These groups of persons are less likely to have access to bank accounts and are further away from the JAM frontier.

UBI and redistributive resource transfers to states

9.69 As Chapter 13 documents, a number of state governments³⁸ receive large amounts of transfers that may not prima facie increase growth or consumption. The UBI offers a possible way-around: a part of the redistributive resource transfers may be transferred by the centre directly into beneficiaries' accounts in the form of a pilot UBI programme.

9.70 However, aid receiving states may be harsh testing grounds for a UBI. These states also often comprise the poorest and the most backward districts, saddled with limited state

capacity. That being said, as Figures 11 and 12 show, these states have made significant progress in providing both Jan Dhan and Aadhaar seeded accounts.

UBI in urban areas

9.71 The discussion above may give credence to the idea of a UBI for urban areas first, as these areas are less likely to suffer from poor banking infrastructure and lack of individuals with bank accounts. The urban areas have an additional benefit – in rural areas, the poor often depend on the state for sustenance, a condition that makes introducing a disruption like the UBI in these areas tricky.

9.72 The pilot exercises of direct beneficiary transfer (DBT) in lieu of PDS – not exactly a UBI – in Chandigarh and Pondicherry offer a cautionary tale. DBT was introduced and rolled back³⁹ within two months in Pondicherry, only to be reintroduced. Despite some evidence on reduced leakages, independent evaluations emphasize the need for an improved digital financial infrastructure (MicroSave, 2016), even in these relatively urban settings⁴⁰.

9.73 Appendix 6 summarizes the previous discussion and offers ways of interpreting successes and failures of each of the gradualist ideas documented above.

D Prerequisites**i. JAM**

9.74 Crucial to the success of the UBI is effective financial inclusion. Nearly a third

³⁷ Indeed, the National Food Security Act mandates that all pregnant women receive INR 6000 during their pregnancy. Similarly, the central government spending on pensions is INR 200 per month, a figure that has not been updated in over a decade.

³⁸ These states the special category states of J & K, Assam, Manipur, Mizoram, Nagaland, Arunachal Pradesh, Tripura, Sikkim, Himachal Pradesh, Uttarakhand.

³⁹ Yadav (2015), scroll.in.

⁴⁰ For a discussion of issues with Chandigarh's DBT, see Singh (2016).

of adults in India still do not have a bank account and are likely to be left behind. These are also likely to belong to the poorest social groups – women, SCs, STs, the ageing and the infirm – who benefit most from state-funded subsidies.

9.75 Currently, as per official records, there are 26.5 crore Jan Dhan accounts (21 percent of the population) across the country. The per capita density of these accounts is relatively high in many of the poorer states (see Figure 11) and Chhattisgarh has the highest penetration. Of the 26.5 crore Jan Dhan accounts, 57 percent are Aadhaar seeded (see Figure 12 for Aadhaar seeded accounts per capita). Some states in the North-East and Jammu and Kashmir lag behind. In terms of JAM preparedness, considerable ground has been covered rapidly, but there is quite some way to go.

9.76 While Aadhaar coverage speed has been exemplary, with over a billion Aadhaar cards being distributed, some states report authentication failures: estimates include 49 percent failure rates for Jharkhand, 6 percent for Gujarat, 5 percent for Krishna District in Andhra Pradesh and 37 percent

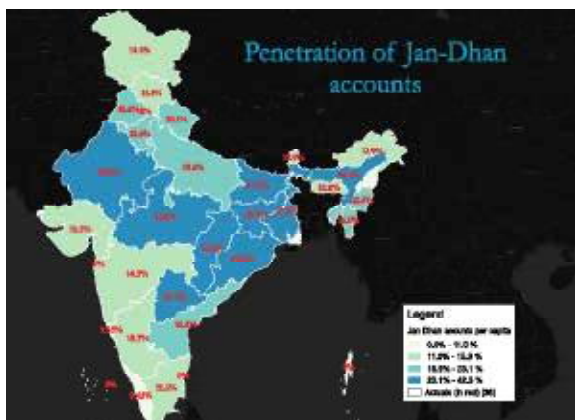
for Rajasthan⁴¹. Failure to identify genuine beneficiaries results in exclusion errors.

9.77 Another problem is leakages – while there exists, in the Indian context, rigorous evidence supporting universalization of in-kind transfers to reduce leakages, it is not clear if a universal cash transfer will necessarily result in lower leakages. Given the amount of cash that will flow through the system under the UBI and the fungible nature of money, one could imagine a perverse equilibrium where the UBI results in greater capture by corrupt actors. Indeed, it is an open question if a UBI today will necessarily work better than simply universalizing other in-kind transfers it replaces. This, once again, reiterates the role of a transparent and safe financial architecture that is accessible to all – the success of the UBI hinges on the success of JAM⁴².

ii. Centre-State Negotiations

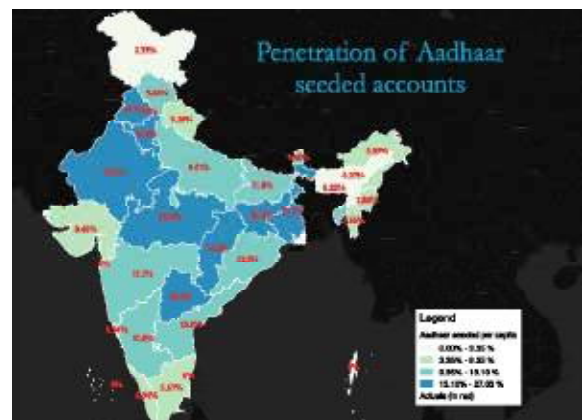
9.78 The UBI amount will be a crucial factor in ensuring the success of such a programme. A key federal question will be the centre-state share in funding of the UBI.

Figure 11. Per capita Jan Dhan accounts



Source: GOI, Survey Calculations

Figure 12. Per capita Aadhaar Seeded accounts



Source: GOI, Survey Calculations

⁴¹ Yadav (2016), scroll.in.

⁴² A UBI will, of course, not be routed only through Jan Dhan accounts. Anyone with an Aadhaar-seeded bank account would be eligible for the UBI. The focus on Jan Dhan in this chapter reflects the importance of these accounts for the poorest.

This would, like the GST, involve complex negotiations between federal stakeholders. Initially, a minimum UBI can be funded wholly by the centre. The centre can then adopt a matching grant system wherein for every rupee spent in providing a UBI by the state, the centre matches it.

XI. CONCLUSIONS

9.79 If, as appears to be the case, that thinkers on both the extreme left and right have all become its votaries, then UBI is a powerful idea whose time even if not ripe for implementation is ripe for serious discussion. One can easily imagine the Mahatma as fair mediator, deliberating and examining both sides of the argument carefully. The Mahatma

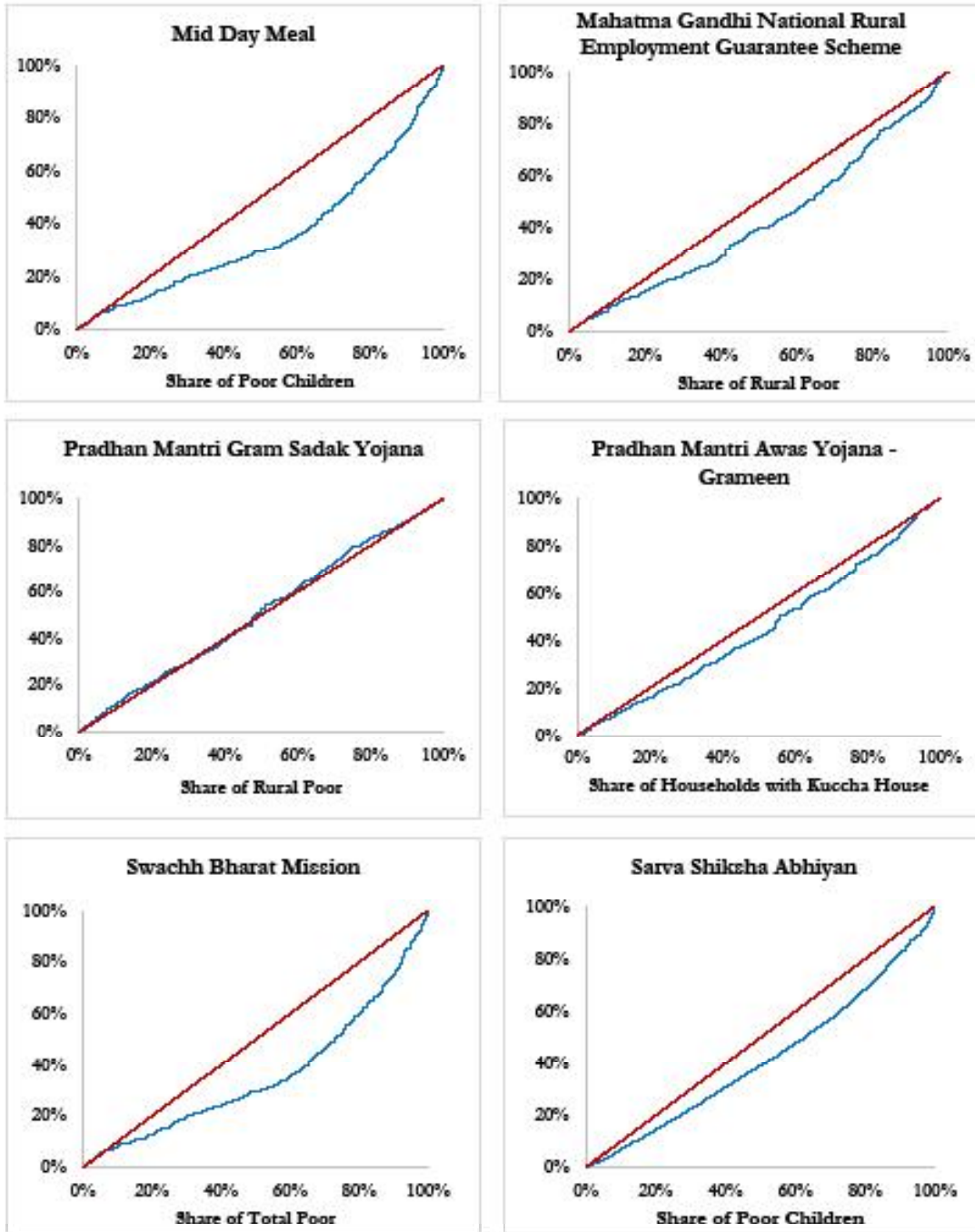
as the embodiment of universal moral conscience would have seen the possibility of UBI in achieving the outcomes he so deeply cared about and fought for all his life. But the Mahatma as moralist would have had doubts because of seeing uncompensated rewards as harming responsibility and effort. As a fiscal conservative he would permit UBI only if convinced that macro-economic stability would not be jeopardized. Recognizing the difficulty of exit, the Mahatma as astute political observer would have anxieties about UBI as being just another add-on government programme. But on balance he may have given the go-ahead to the UBI.

9.80 Or so one might tentatively infer.

APPENDIX 1. RESOURCE MISALLOCATION CALCULATION BY PROGRAMME

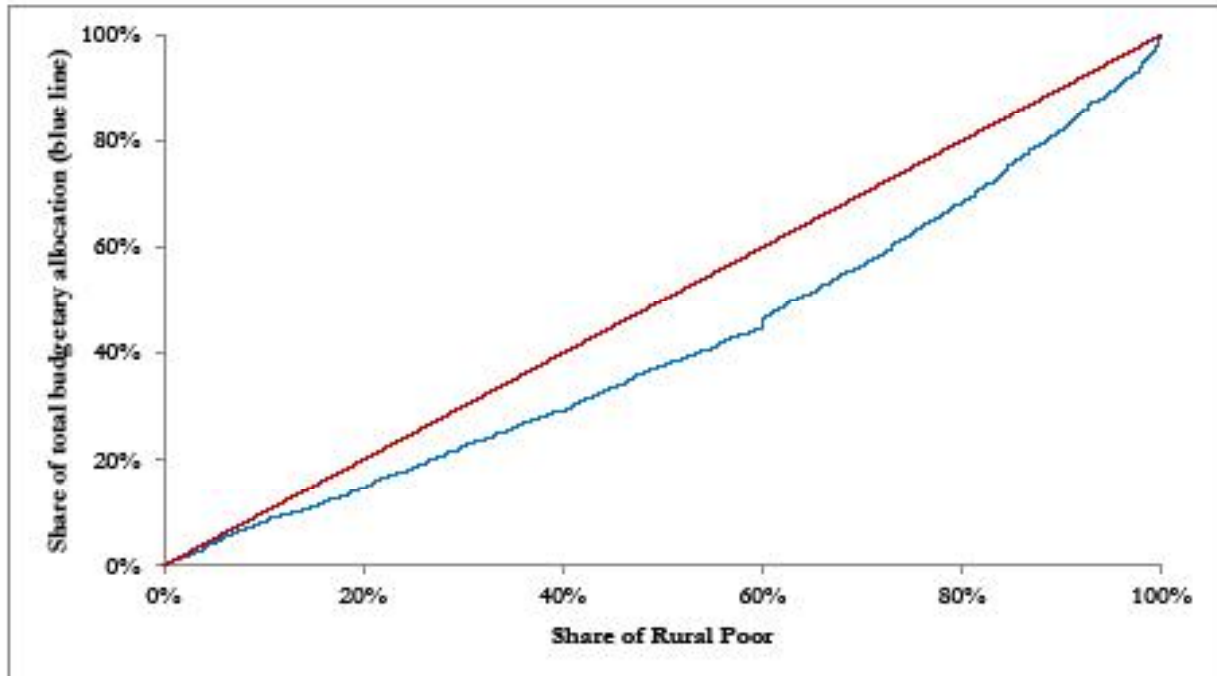
Here misallocation across districts is given for each of the 6 programs by its relevant intended beneficiaries⁴³. Y-axis in each chart is share of districts in total programme allocation

Figure A1. Misallocation calculated across different programs



Source: Administrative data for each programme, NSS 2011-12, SECC 2011, Survey Calculations

⁴³ As the graphs show, we calculate misallocation by intended beneficiaries where the scheme targets certain groups. Otherwise, we calculate misallocation by share of poor.

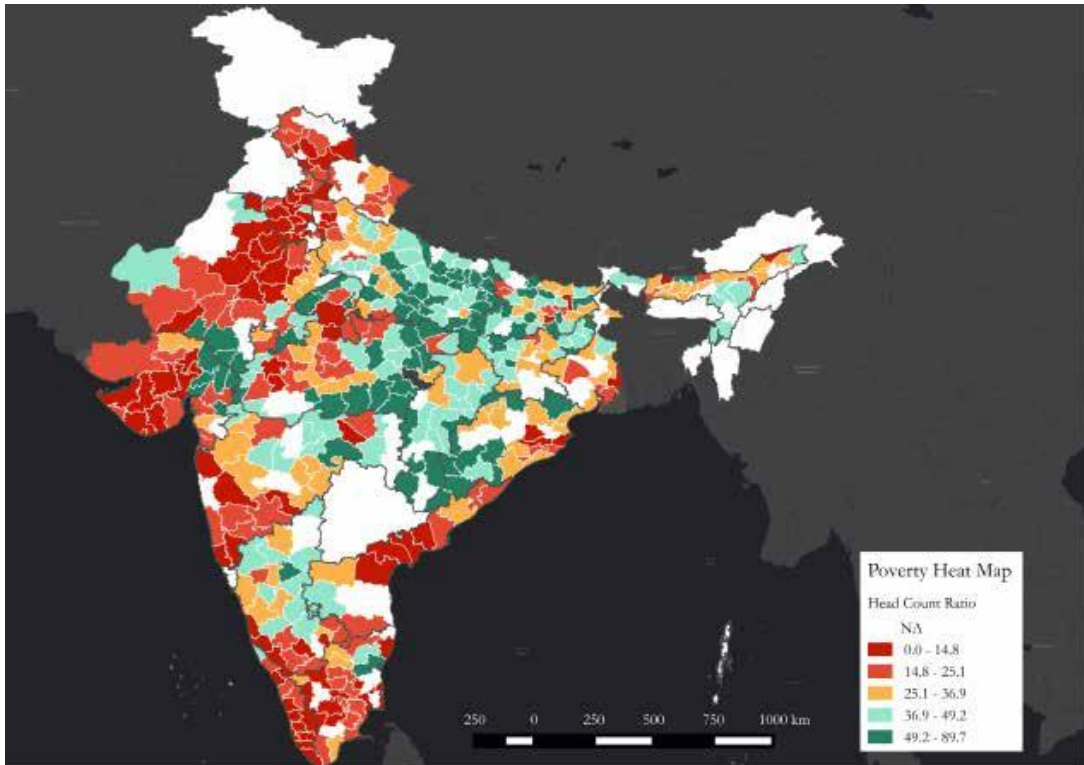
Figure A2: A Graphical Representation of Misallocation

Source: Administrative data for each programme, NSS 2011-12, SECC 2011, *Survey Calculations*

To explore misallocation further, a GINI coefficient is constructed to measure the degree of misallocation across districts for the above schemes. Here the X-axis represents the districts' cumulative share in rural poor from the poorest to the least poor districts, and the Y-axis represents the cumulative share of these districts in total allocation across each of these programs. Reading off the graph, we see that the poorest set of districts accounting for 20 percent of the poor access only 15 percent of the resources, 40 percent of the poor only 29 percent of the resources and 50 percent of the poor about 38 percent of the resources from the scheme. The overall GINI coefficient for misallocation is 17 percent – the gap between the red and the blue lines in the figure – with significant variation across programs.

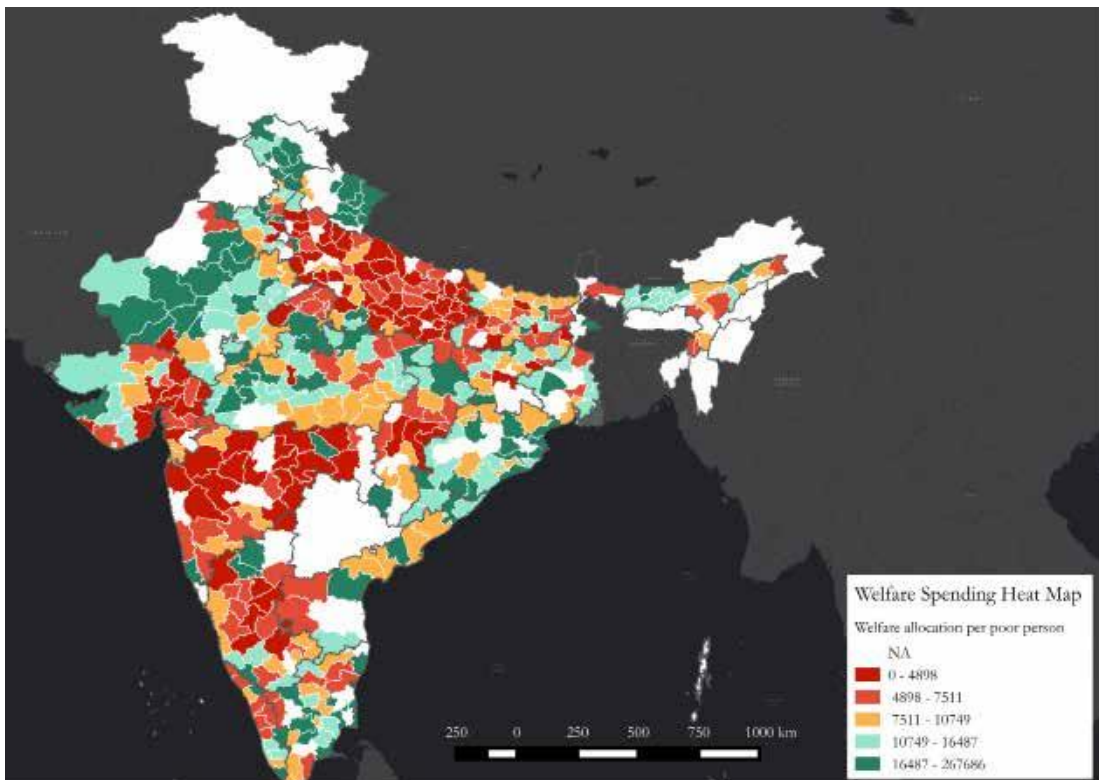
The two graphs below emphasize the extent of misallocation across districts for the six top welfare programs - the PMAY, SSA, MDM, PMGSY, MGNREGS and SBM. Figure A3 is a heat map of the headcount ratios of all districts for 2011-12 whereas Figure A4 shows the same for total welfare allocation (six programs) per poor in the same districts. There is a sharp mismatch in the poverty levels and the welfare spending per poor, reflected in the contrasting colours of many districts. This is especially visible in Uttar Pradesh, parts of Bihar and Madhya Pradesh. In other words, the poorer districts are starved of welfare funds.

Figure A3. Headcount Ratio by districts (2011-12)



Source: NSS 2011-12, Survey Calculations

Figure A4. Welfare spending per poor across districts



Source: Programme administrative data and NSS 2011-12, Survey Calculations

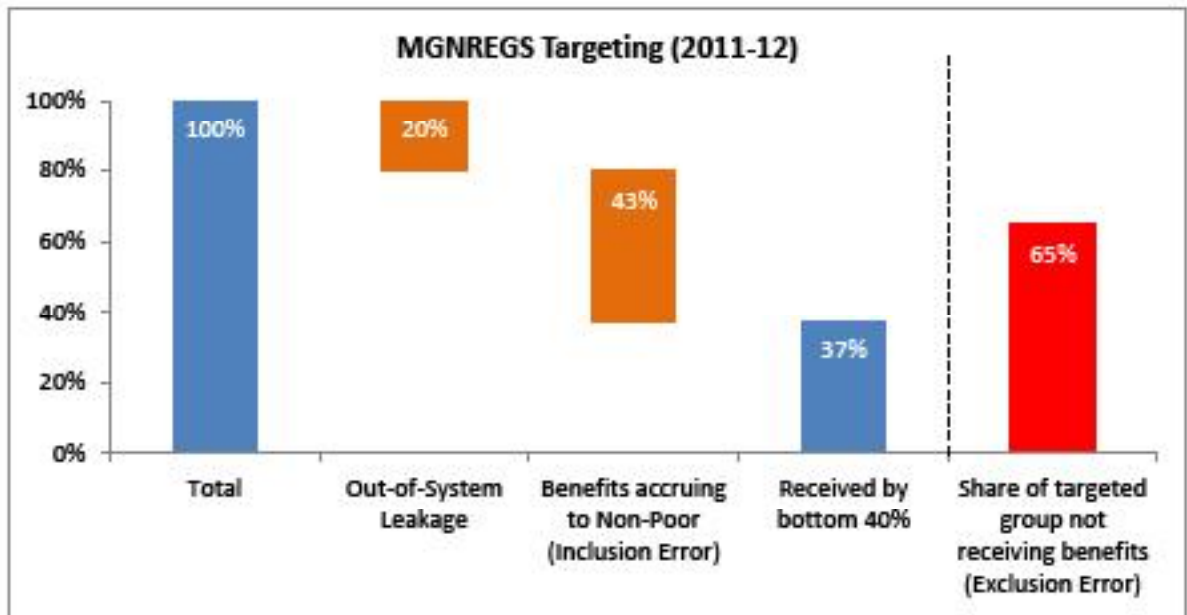
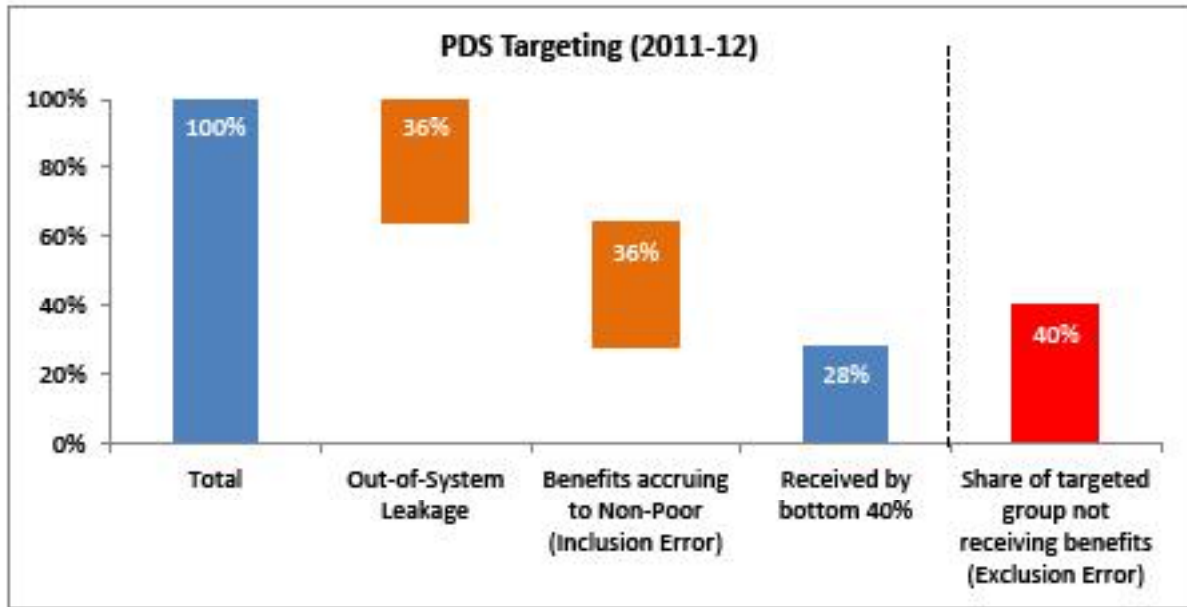
APPENDIX 2. TARGETING OF CURRENT CENTRAL SECTOR AND CENTRALLY SPONSORED SCHEMES

Methodology:

The targeting efficiency analysis incorporates four forms of targeting errors – leakage out of the system, misallocation of resources across districts, benefits to non-poor and exclusion of poor. The poor are defined as the poorest 40 percent of the population, or individuals belonging to the bottom 40 percent of income distribution. Figure A3 shows the targeting efficiency of PDS and MGNREGS for 2011-12, calculated based on methodology presented below (non-poor in chart refers to bottom 40 percent).

Targeting Error	PDS (for each of Rice, Wheat and Kerosene)	MGNREGA
Out of system leakage	Actual allocation minus Total quantity of PDS received by all beneficiaries Source: Economic Survey of India 2015-16	Imbert and Papp (2014)
Incidence (top 60%)	Incidence of total volume of PDS for each of rice, wheat and kerosene on top 60% in the survey Source: IHDS 2011-12	Share of MGNREGA income received by the top 60 %in the survey Source: IHDS 2011-12
Exclusion error	Proportion of those in bottom 40% in the survey who do not receive PDS item Source: IHDS 2011-12	Proportion of those in bottom 40% in the survey who do not have a MGNREGA Card Source: NSS 2011

Figure A5. PDS and MGNREGS Targeting (2011-12)



APPENDIX 3: SEWA BHARAT – UNICEF STUDY ON BASIC INCOME TRANSFERS⁴⁴.

Moral hazard associated with labour supply as a consequence of UBI

This is an issue often raised across national contexts. That giving unconditional basic income would act as a major disincentive to work. That people would simply take the free money and laze around. However, Davala et al (henceforth referred to as the “MP study”) shows clearly that it is not the case in Madhya Pradesh in India.

One of the major findings of the study is a shift from wage labour to own cultivation. That is, small and marginal farmers, when they get a basic income, begin to invest more into their own cultivation. As a result, one observes a positive jump in agricultural production and land cultivated. This dynamic also had another positive effect on indebtedness which is chronic in the case of small and marginal farmers. They borrowed less from money-lenders whose rates in the region are as high as 2 to 10percent per month. In short, the study shows that people become more productive when they get a basic income.

Two, by definition, the basic income is not meant to replace employment. One cannot live entirely on basic income. It is a guaranteed income that acts as a cushion to survive even under extreme situations.

Lastly, the study also shows that if the right amount is given as a basic income, the positive effect is disproportionately higher than what the monetary value is under normal circumstances. In other words, the emancipatory value of basic income is several times greater than its monetary value.

2. Effect of UBI on conspicuous spending and spending on bad goods

When one raises this question, one has two images in mind.

1. That cash is fungible and need not necessarily be used for the desired welfare effect that any social policy envisages, and for the basic needs that one associates the poor with, such as food and nutrition, clothing and education, and so on.
2. Two, an irresponsible male head of the household can wipe out all the assistance money reducing the family members to start begging on the streets.

The empirical evidence clearly demonstrates that these presumptions do not hold much water in reality. In the first place, there has been no statistical evidence of any increase in economic “bads” such as consumption of alcohol and tobacco. On the contrary, in Bhil tribal village, there was actually a drop in consumption of alcohol since that is where people had liquidity to use for agricultural inputs and therefore one saw an increase in agricultural productivity and own cultivation effect.

⁴⁴ Contributed by India Network for Basic Income and SEWA Bharat based on Davala et al (2015).

APPENDIX 3: DETAILS OF 7 STUDIES USED FOR META-ANALYSIS IN BANERJEE, HANNA, KREINDLER AND OLKEN (2015)

Country	Program	Evaluation Years	Number of Households at Endline	Targeting Method	Transfer Type and Amount	Transfer/Consumption
Honduras	Programa de Asignación Familiar - Phase II (PRAF II)	2000-2002	3,185	Geographic and family demographics	CCT ranging from \$4 to \$23 per month depending on family structure	4%
Morocco	Tayssir	2008-2010	4,268	Geographic	CCT and labelled CCTs: between \$8 to \$13 per month per child (depending on age of child)	5%
Mexico	Progresa	1998-1999	18,351	Geographic and PMT	CCT: \$12.5/month + \$8 - \$30.5/month per child (depends on child grade) + \$11-\$20.5 grant for school materials per child, Max grant per HH (1999): \$75/month	20%
Mexico ¹	Programa de Apoyo Alimentario (PAL)	2004-2005	2,866	Geographic	UCT: \$13 per month	11.50%
Philippines	Pantawid Pamilyang Pilipino Program (4Ps)	2009-2011	1,410	Geographic and PMT	CCT: \$11 - \$30 per month depending on number of kids	11%
Indonesia	Program Keluarga Harapan (PKH)	2007-2009	14,665	Geographic and PMT	CCT: \$44 - \$161 per year	17.50%
Nicaragua	Red de Protección Social (RPS)	2000-2002	1,433	Geographic. All except 6% who owned vehicle or ≥ 14ha land	CCT: \$224/year + \$112/year (school attendance) + \$21/child/year	20%

Notes: (1) The experiment included two treatments: a food transfer and a cash transfer. We focus on the cash transfer treatment only.

Sources: Honduras: Galiani and McEwan (2013), Glewwe and Olinto (2004); Morocco: Benhassine, Devoto, Duflo, Dupas, and Pouliquen (2015); Mexico Progres: Parker and Skoufias (2000); Skoufias and di Maro (2008); Mexico PAL: Skoufias, Unar, and Gonzalez-Cossio (2013); Philippines: Chaudhury, Friedman and Onishi (2013); Indonesia: World Bank Office Jakarta (2011); Nicaragua: Maluccio and Flores (2005)

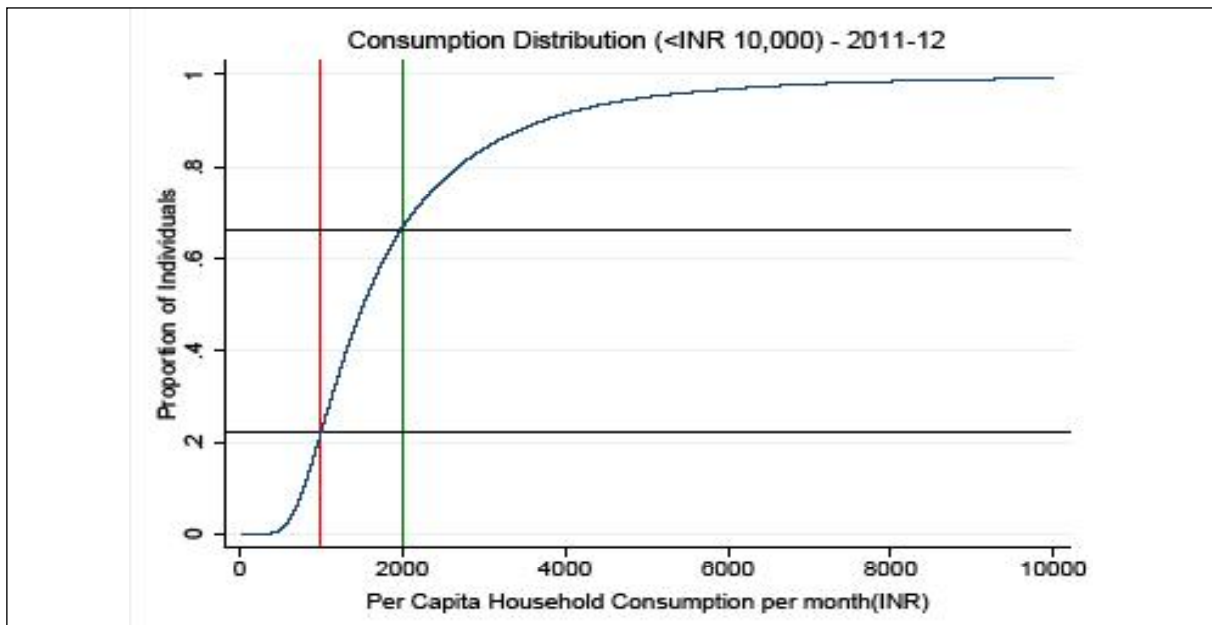
APPENDIX 4: CALCULATION OF POVERTY AND VULNERABILITY FOR DIFFERENT VALUES OF UBI

The IHDS 2005-06 and 2011-12 longitudinal surveys are used to calculate the poverty and vulnerability for each level of UBI. Additionally, poverty levels are also calculated using the NSS 2011-12 Survey.

ASSUMPTIONS AND CAVEATS:

1. Both the decline in poverty and vulnerability is calculated assuming status quo. More specifically, the assumption is that current welfare schemes and subsidies provided by the government continue to remain the same and the UBI is a contribution made in addition to it. Therefore, insofar as the UBI comes in place of other welfare schemes, the poverty reduction estimates may be an overestimate.
2. These estimates view a UBI solely as a source of consumption but in reality it may also be used as a means of asset accumulation which in turn may lead to higher incomes and consumption. Hence, these estimates may be an underestimate of the true effect of UBI on poverty and vulnerability.
3. It is assumed that the population consumption distribution in 2016-17 looks exactly like the population consumption distribution in 2011-12. In fact, it would be reasonable to assume that the consumption distribution rose faster than the poverty line and poverty may have fallen below the 2011-12 estimate of 16 percent (22 percent using NSS 2011-12). The consumption levels of the bottom 40 percent of population and the poor are similar, as can be seen in the consumption distribution chart below. Here the red vertical line is the poverty line, the green vertical line twice the poverty line. Almost 40 percent of households have consumption levels between these two lines (intersection of horizontal and vertical lines).

Figure A6. Distribution of Consumption (2011-12)



Source: NSS 2011-12, Survey Calculations

Poverty Rate: For each UBI amount of INR X per capita per month one calculates the total per capita consumption post UBI equal to total per capita consumption (NSS 2011-12 + X) for each household. One then calculates the proportion of households that continue to remain below poverty line. The same analysis was repeated using IHDS 2011-12.

Vulnerability: For each UBI amount of INR X per capita per month, calculate the total per capita consumption post UBI in 2005-06 and 2011-12 (as per formula above – only IHDS numbers are used since vulnerability is estimated using the longitudinal nature of the dataset). Next, calculate the proportion of non-poor in 2005-06 (post UBI transfer) who become poor in 2011-12 (again, post UBI transfer).

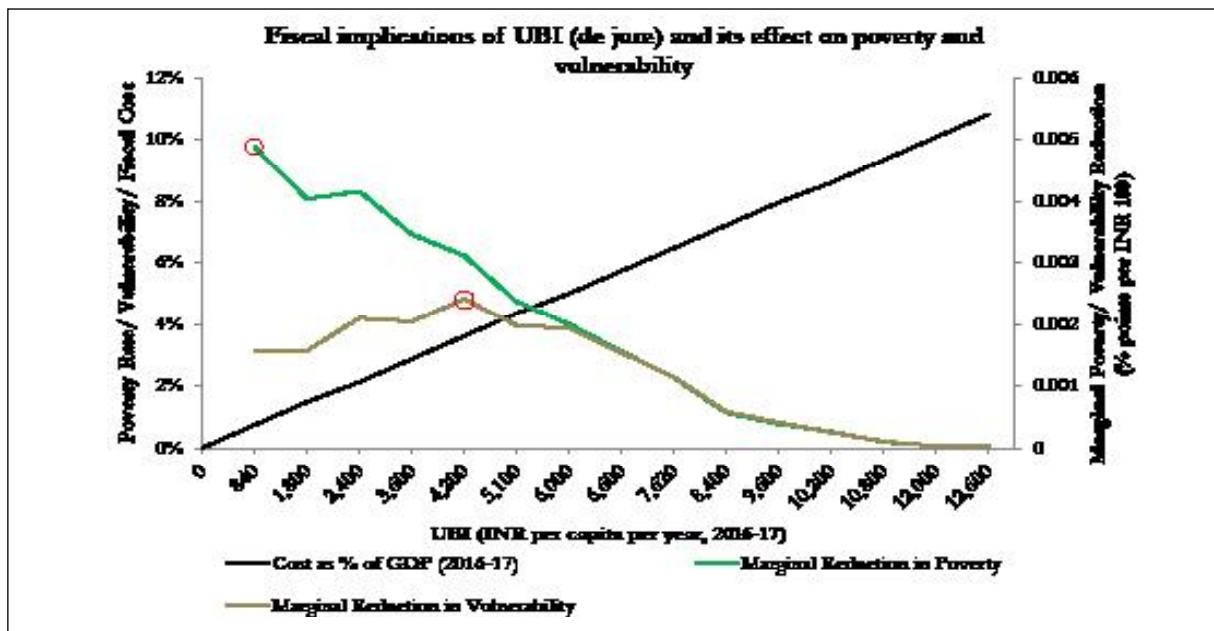
Marginal Reduction in Poverty: For each additional rupee of UBI transfer, calculate the percentage point reduction in poverty.

Marginal Reduction in Vulnerability: For each additional rupee of UBI transfer, calculate the percentage point reduction in vulnerability.

Fiscal cost of UBI: Adjust the 2011-12 UBI amounts for inflation to get a 2016-17 UBI amount. This number is then multiplied by total population to arrive at the total cost of UBI as well as cost of UBI as a proportion of GDP (budget estimates for 2016-17).

Bang-for-buck UBI:

Figure A7. UBI fiscal cost and effect on marginal reduction in poverty and vulnerability



Source: IHDS 2005-06 and 2011-12, Survey Calculations

The Figure A5 charts UBI based on obtaining the maximum bang-for-buck— i.e., it calculates the poverty and vulnerability reduction for each additional rupee spent on the UBI and, subsequently, chooses the amount that maximizes this reduction. These are called the marginal poverty and marginal vulnerability reduction curves, denoted by the green and grey lines in Figure A5. A look at the two curves in this figure shows that the maximum bang-for-buck UBI for poverty reduction is INR 600 per capita per year and for vulnerability is INR 3000 per

capita per year in 2011-12. The inflation adjusted figures for 2016-17 are INR 840 and INR 4200 (red circles in Figure A5). Taking an average of the two estimates implies a UBI of INR 2520. This translates to only about 2.2 per cent of the GDP. Assuming a *de facto* universality that excludes the top 25 percent of the population, this costs 1.6 per cent of the GDP. This level of UBI reduces poverty rate to 9 percent and vulnerability to 7.5 percent. If provided only to females (of all age groups) this cost would come down to about 0.85 percent of GDP.

Table 3: UBI amounts, Poverty Rate (NSS & IHDS 2011-12) and Cost to GDP (percent)

UBI (Rs. per capita per year, 2011-12)	UBI (Rs. per capita per year, 2016-17)	Poverty Rate (2011-12) NSS	Poverty Rate (2011-12) IHDS	Fiscal Cost as % of GDP (2016-17) NSS	Fiscal Cost as % of GDP (De Facto targeting, 2016-17) NSS
0	0	22.03%	16.86%	0.0%	0.0%
600	874	17.62%	13.93%	0.7%	0.6%
1200	1747	13.54%	11.51%	1.5%	1.1%
1800	2496	9.78%	9.02%	2.1%	1.6%
2400	3370	6.63%	6.94%	2.9%	2.1%
3000	4243	4.14%	5.08%	3.6%	2.7%
3600	5117	2.52%	3.66%	4.3%	3.3%
4200	5866	1.42%	2.46%	5.0%	3.7%
4800	6739	0.82%	1.53%	5.7%	4.3%
5400	7613	0.45%	0.85%	6.5%	4.9%
6000	8486	0.20%	0.51%	7.2%	5.4%
6600	9360	0.11%	0.28%	8.0%	6.0%
7200	10109	0.06%	0.12%	8.6%	6.4%
7800	10982	0.04%	0.06%	9.3%	7.0%
8400	11856	0.02%	0.05%	10.1%	7.6%
9000	12730	0.00%	0.03%	10.8%	8.1%
9600	13603	0.00%	0.02%	11.6%	8.7%
10200	14352	0.00%	0.02%	12.2%	9.1%
10800	15226	0.00%	0.01%	12.9%	9.7%
11400	16099	0.00%	0.00%	13.7%	10.3%
12000	16973	0.00%	0.00%	14.4%	10.8%

APPENDIX 6: UNDERSTANDING THE UBI PILOT IDEAS AND IMPLICATIONS FOR SCALE-UP

Panel A and B of the Table below detail implications for a nation-wide UBI in the event of success and failure, respectively, for each of the gradualist approaches listed in section X.C.

Notionally, the definition assumed for the success of a UBI pilot is one that is leakage-free and perfectly targets the beneficiary group for each of the pilots.

1. SUCCESS

UBI Idea	If the following ideas work, what does it imply for each of the categories below?			How do we scale up?
	Accurate beneficiary identification	Well-functioning JAM infrastructure	Administrative feasibility	
UBI for women	Yes – a UBI for ALL women that works will suggest that beneficiary identification during scale-up shouldn't be an issue.	Yes – A UBI that perfectly targets women can be sufficient proof for JAM's ability to deliver benefits.	Yes – An administration that can handle a UBI for all women should not find it too hard to extend to all persons. (Despite doubling the scale, the fixed costs associated with setting up a UBI will already have been incurred)	The UBI for women alone should precede a UBI for <i>all</i> persons, including men and children.
Choice to replace existing benefits with UBI	No – since this approach reinforces previous beneficiary mis-identification.	To a certain extent – since it will show that JAM works for those who are already included in the system.	Yes – a choice scheme that works will not only overcome administrative issues related to fund transfer, but will also display the capability of the system to effectively recognize those who have chosen to give up and those who don't.	Choice should gradually be replaced by a system where everyone who is interested should be allowed to enter the UBI system, independent of whether they give up other benefits.
Across vulnerable groups	No – these groups are easily identifiable: success here may not mean success across all groups.	Yes – this would be a strong proof of concept for JAM's ability to correct exclusion error, since these groups of individuals are particularly likely to be excluded.	To a small extent – as these groups account for a small proportion of UBI's beneficiaries, they wouldn't tax the administration as a full-scale UBI would.	Unclear on what the next steps are with respect non-easily identifiable groups.

In lieu of state aid	Yes – since it covers all residents in these areas.	Yes – this would be a very strong proof of concept for JAM, since these areas are low on financial inclusion.	Yes – if UBI works here where the state capacity is relatively lower, it is likely to work in areas with better state capacity.	Gradually expand to all states.
Urban areas	To a certain extent – results may not extend to rural areas especially because exclusion of urban rich may be somewhat easier.	To a certain extent – results may not extend to rural areas where JAM preparedness may be lower.	To a certain extent – it displays that a UBI for urban areas could be undertaken at scale. However, the rural administrative machinery could be a very different one from its urban counterpart.	Tread cautiously before expanding to rural areas since not all lessons are directly transferrable.

2. FAILURE

UBI Idea	If it doesn't work, then what does it imply for the UBI?
UBI for women	This would imply that a UBI for all may be very challenging to design and implement.
Choice to replace existing benefits with UBI	This would imply that a choice-based UBI may not be the best way to go – the learnings for a non-choice based UBI is limited.
Across vulnerable groups	It would suggest one or more of the following: <ul style="list-style-type: none"> (a) A UBI, if it has to succeed, may be tried across a larger cross-section of the population. (b) Either the JAM infrastructure or the administrative capacities of the state are not sufficient to cater to the most vulnerable groups via a UBI.
In lieu of state aid	A failure here is more likely than elsewhere – so, this may not have huge implications for the success of a UBI in most parts of the country.
Urban areas	A failure here is least likely, since urban areas have better JAM infrastructure and state capacity – therefore, in the event of a failure, one has to rethink the feasibility of a UBI in India.

**APPENDIX 7: NOTE ON THE CALCULATIONS OF
IMPLICIT SUBSIDIES FOR THE MIDDLE CLASS**

Government Subsidies/Spending/ Help for Middle Class (with explanatory notes)		
Scheme (2015-16)	Implicit Subsidy to T 40 (Rscore)	Source
LPG	28,219	Economic Survey, NSS 2011-12, International Gold Council and Rail Ministry
Railways-1 (only A/C)	1,115	
Railways-2 (Sleeper class)	9,002	
Aviation turbine fuel	762	
Gold	10,800	
<p><i>The top 40 per cent population estimated based on expenditure distribution as per NSS data of 2011-12 is assumed to be the “middle class”. Effective subsidy rate is the difference between normative tax rate (50 per cent for LPG and Aviation turbine fuel, 14 per cent service tax for railways and 6 per cent for gold) and actual subsidy/ tax rate. Implicit subsidy is the effective subsidy rate multiplied by consumption of that commodity by middle class. Number of beneficiaries are counted as only those HHs which are consuming the particular commodity based on NSS survey. For Aviation turbine fuel, total domestic passengers have been taken for estimation of subsidies. Railway-1 : Covers passengers travelling in A/C first class, A/C sleeper class and A/C chaircar. Railway-2 : Covers passengers travelling in sleeper class (M and E). Number of passengers also includes suburban passengers.</i></p>		
	Implicit Subsidy (Rscore)	Source
Personal Income Tax (2015-16)	59,928.33	Union Budget 2016-17
<p><i>Revenue foregone on account of personal tax exemption has been considered as implicit subsidy to non-poor as it is only the top quantile of the population that benefits from such exemptions.</i></p>		
Fertiliser (2015-16)	Subsidy (Rscore)	Source
Total large farmers	5435	Budget 2016-17, Economic Survey, Agriculture Statistic at a Glance

The total number of large farmers has been estimated using NSS 70th round on Situation of Agricultural Households in India. Any farmer having land holding size ≥ 5 ha is considered to be a large farmer. In calculating net subsidy to farmers, subsidies that finance inefficient domestic production and subsidies that associated with leakages is excluded.

	Implicit Benefit (Rscore)	
Tax exemption limit	9,181	Economic Survey and Department of Revenue.

With a view to provide relief to small and marginal taxpayers and senior citizens, the current Government in their first budget in 2014-15 increased personal income tax exemption limit by Rs 50,000 i.e., from Rs 2 lakh to Rs 2.5 lakh in the case of individual taxpayers who are below the age of 60 years. Similarly, the government raised the exemption limit from Rs 2.5 lakh to Rs 3 lakh in the case of senior citizens. This was the highest increase in exemption in single stance since 2005-06. The initiative benefits around ~1.84 crore taxpayers who fall under the 10 percent to 30 percent tax bracket. The estimated benefit of Rs 5000 is same across the tax brackets because it just changes the lower bound of the 10 percent tax bracket (from 2 lakh to 2.5 lakh) and other bounds remain unchanged.

	Interest Subsidy (Rscore)	Source
Interest Subvention Scheme (2015-16)	13000	NABARD

Number of farmers in 2015-16 has been projected from the number of farmers in 2013-14 assuming an annual growth rate of 6.8 percent. We assume that the growth rate between 2014-15 and 2015-16 is approximately equal to the growth rate in the previous fiscal year, which we calculated as 6.8 percent. Interest subsidy amount has been taken from NABARD and GOI Budget.

Mudra	Disbursement (in crore)	Source
2015-16	1,32,955	Mudra website
Interest Subsidy on Mudra Account		
	Interest Subsidy (Rscore)	Source
2015-16	14,678	Based on Information Received from DFS.

To estimating the interest subsidy on mudra accounts, we have assumed an interest rate of 25 percent (interest rate in informal loan market or charged by moneylenders. As per the information given by Department of Financial Services (DFS), the weighted interest rate of 13.96 percent. The difference of these two interest rate is considered as interest subsidy. If we take interest rate in informal market as 20 percent, the per capita (account) interest subsidy is Rs 2294 per account.

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