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Focus :

Demonetisation in India: Social networks as a safety net, but not for all?

On November 8th 2016 at 8pm, the Indian Prime Minister Narendra Modi announced the ban of the 500 and 1000 rupee notes, the two highest value banknotes in circulation. From midnight onwards, these two notes were no longer legal tender and had to be exchanged in banks for new notes. This demonetisation process was presented by the Modi government as a pro-poor measure. The first stated objectives were to fight corruption, the illegal economy, counterfeit money, and terrorism. In the medium term, the policy of curtailing black money, broadening the fiscal space and promoting a cashless economy was supposed to encourage the formalisation of the economy, which in turn was expected to benefit the poor. In practice, the implementation process faced technical disruptions, leading to severe cash shortages, and the overall poor preparation of the policy led the country into chaos for over three months.

Due to the importance of cash in the Indian economy (98 percent of transactions are estimated to be in cash), this measure had strong impacts on employment, daily financial practices, and network use for more than three months, as people relied more strongly on their networks to sustain their economic and social activities. Demonetisation has then led to a reorganisation of the usage of individual and community networks. As this demonetisation was unexpected, unforeseeable, and took place over night, households could not have prepared for it and were hit by an exogenous variation in money supply, which is especially influential in a cash-based economy such as India. Cash shortages have then led to an increased demand for informal credit and a multiplicity of informal transactions, intensifying social interactions in labour arrangements. Households and workers found ways to provide informal credit, to pay wage advances, and to receive earnings or to continue material exchanges from each other based on trust, but also on existing and unequal social structures.

In such economic and social systems, the populations were encouraged to judge one anothers' credit and thrift. An increased usage of social networks thus determined individual's propensity to trust one another. Using this demonetisation as an exogenous shock to observe the determinants of trust in a rural south Indian region, Hilger and Nordman (2017) indeed show that individuals with more intensive network use, defined as the share of the activated over the total network, were more trusting in other people. The underlying mechanism seems to have been that individuals who made more intensive use of their network had a more realistic understanding of who they could actually rely on in times of crises, such as the sudden reduction in money supply due to demonetisation.

In this article, we discuss the economic and social consequences of this shock, with a particular focus on the social network dimensions that have strengthen the population resilience in a specific rural environment of South India. Our findings rely on original socio-economic surveys carried out in rural Tamil Nadu in 2016-2017. They combine quantitative and qualitative data which are further described in Guérin, Lanos, Michiels, Nordman and Venkatasubramanian (2017a, 2017b). Quantitative data include the NEEMSIS household survey[1] which focused on all aspects of rural life, including in-depth modules on labour arrangements (including migration), financial practices, consumption, remittances, access to government schemes, etc.[2] In this survey, 2,700 individuals from around 500 households were surveyed, spread across ten villages in rural Tamil Nadu on the border of the two districts Villupuram and Cuddalore. The survey was begun in August 2016, and was then stopped at the time of demonetisation. This interruption was not related to the demonetisation shock, but to logistical survey constraints. Hence, the constitution of pre- and post-demonetisation samples of households can be considered as rather exogenous to the shock. The survey started again mid-January 2017, more than two months after the "notes ban" policy. We used this as an opportunity to include an extensive module on demonetisation, in order to tackle how it had affected employment and labour organisation, financial practices, and social networks. Almost 30 percent of the households were interviewed post-demonetisation. We also used this unexpected break as an opportunity to conduct qualitative fieldwork: in-depth interviews were carried out with individuals, households and economic actors (labour recruiters, employers, shopkeepers, moneylenders, politicians and managers of large corporates). These sought to understand how the interviewees were dealing with their daily expenses and employment. The research team also spent time in villages, farming fields, markets and shops to observe the day-to-day implementation of demonetisation. This observation of financial transactions and negotiations between employers and labourers, moneylenders and borrowers, traders and clients, helped us understand the fascinating resilience of people, but also the range of cases and the highly uneven capacity of individuals and households to deal with the crisis.

Our analysis of demonetisation, how it has been experienced, appropriated, translated, manipulated and at times circumvented, qualifies some of the criticisms raised by commentators of the measure[3], while widely confirming doubt as to its credentials as a “pro-poor measure”. Our empirical evidence

[1] The *Networks, Employment, dEbt, Mobilities and Skills in India Survey* (NEEMSIS, https://neemsis.hypotheses.org/) has been implemented in 2016-2017 by the authors of this focus. NEEMSIS follows a first household survey wave conducted in 2010, thus constituting a panel of households and individuals, but for a matter of space comparison between 2010 and 2016 is not undertaken here.

[2] This survey feeds two complementary research programmes at the French Institute of Pondicherry (IFP), both joint collaborations with the IRD: one launched in 2003, Labour, Finance and Social Dynamics, tackling labour and finance behaviours in coastal/central Tamil Nadu (South India); the second, launched in 2015, the LAKSMI programme (LAbour, sKills, Social networks and Mobilities in India) tackling the interlinkages between labour, skills, social and professional dynamics and social networks use in South Asia.

[3] See, for instance, interviews given by Amartya Sen to the Hindu, January 17th 2017, http://www.thehindu.com/opinion/interview/%E2%80%98Serious-job-losses-are-taking-place%E2%80%99/article17046208.ece (accessed 22rd September 2017), the interview given by Barbara Harriss-White to Macroscan, January 16th, 2017, http://www.macroscan.org/dem/jan17/pdf/Barbara_Harriss_White.pdf (accessed 22 September 2017), and the interview given by Prabath Patnaik to the Hindu, 16th December 2016, http://www.thehindu.com/news/cities/Hyderabad/Demonetisation-not-a-solution-to-problem-of-black-money-says-Prabhat-Patnaik/article16841981.ece (accessed 22rd September 2017). See also Kohli and Ramakumar (2016) and Kumar (2017).

cautions the idea that demonetisation led the country into severe chaos, at least in the region under study. But people have shown fascinating resilience thanks to the very informal economic practices that allow for considerable adaptation and reactivity. Both the strength and plasticity of informal networks have allowed cash holders to get rid of their old notes quite easily, using a range of tactics and social relations.

However, while social networks can protect from shocks, they are based in social and hierarchical institutions. These are what have regulated the implementation of demonetisation. Those who were excluded, socially and economically, from these networks, suffered the most. In the region under study, the fight against black money has been a failure, the price of which has partly been paid by the poor, although some of them have been able to take advantage of it.

Managing cash scarcity, but reshaping labour arrangements

During demonetisation, and for over three months, the scarcity of cash significantly slowed down the economy. According to various estimates, the Indian economy lost points of growth[4] as a direct result (Rao and Kotian 2017; *The Economic Time*[5], Nov. 7, 2017), but the official statistics cannot capture the negative growth effects on the informal sector (as the official numbers are largely based on formal sector data). It would seem that the official GDP statistics are significantly underestimating the impact of demonetisation on growth.

Among the villagers interviewed after demonetisation who had been in work over the past year, more than a third declared to have worked less in their primary occupation owing to the demonetization (Guérin et al., 2017b). Six percent had had to stop completely. Agricultural wage workers seemed to have been most affected, alongside the self-employed. However, most non-agricultural wage workers (industry or service sectors) were working as many hours as before demonetisation and a quarter of them were working less. Men, more frequently than women, were forced to work less but more women had to stop their first job because of demonetisation.

As for consumption, many of our interviewees stated that they had consumed less during the demonetisation, or in the same overall quantities, but with less frequent meals. Many economic transactions, however, continued on the basis of mutual trust and credit, through deferred wage payments and consumer good purchases. The very strength and dynamism of the informal economy were what allowed actors to soften the impact of the shock.

Various arrangements were found for wages, often combining payment in kind (for instance rice for landowners, free meals for restaurants) and delayed payments. Among the post-demonetisation interviewees, wage jobs accounted for 50 percent of their occupations. More than half of these jobs experienced delayed payments. In a few cases, wages decreased, and one in ten workers suffered from both a decrease in salary and delayed payment. Pay cuts happened only for middle castes and *Dalits*. [6] Delayed payment mostly affected Dalits and middle castes as opposed to upper castes. The unequal impact on wages across castes stands out more with regular jobs. Upper castes – who generally occupy the most prestigious and sustainable positions –, were less sensitive to the harmful affects of demonetisation on employment. The most vulnerable social groups – mainly Dalits, and to a lesser

[4] Indian GDP growth fell to 5.7 per cent in the April-June quarter of 2017-18 from 6.1 in the preceding quarter and 7.1 per cent in the corresponding quarter last year.

[5] https://economictimes.indiatimes.com/news/economy/policy/time-to-accept-the-blunder-heres-what-manmohan-has-to-say-on-note-ban-anniversary/articleshow/61541962.cms

[6] The survey uses a stratified sample framework according to caste representation, among other dimensions. The caste representation was based on a self-classification of individuals into castes using local terminologies, which were then categorised into three main categories: “Dalits” – formerly called “untouchables”, middle castes and upper castes.

extent middle castes – experienced payment delays (half of them) and a greater shrinkage in their activity.

Delayed payments in turn reinforced informal channels of wage payments, such as wage advances, rather than formalising them. In our region of study, many workers are seasonal migrants in cane cutting and brick moulding. They are used to receiving large wage advances which are distributed during the off-season. Much of it is given at *Dipawali*, a very important Hindu celebration every year, which fell a few weeks after the demonetisation. Indeed, our data show that advance on wages after demonetisation were mostly received by lower castes working in brick kilns, but also by upper and middle castes with salaried positions (operators, supervisors). In brick kilns, where employers provide the advances, many tried to use this as an opportunity to get rid of part of their old cash surplus. Labour intermediaries, usually in charge of distributing advances and managing labourers, had to negotiate with workers. Various scenarios were observed. Some families accepted the old cash, deposited it slowly in the bank to avoid any suspicion, and withdrew it slowly. Given the liquidity scarcity all the rural banks faced, they had to go there many times in vain, spending considerable time and money to convert their employers' old – and certainly black – cash. Some families asked labour intermediaries to take care of the transactions. Some had to bribe bankers who then refused to deliver cash to the workers, and *maistries* (the leaders of a work crew) were then pushed to beg the employers for new cash. Some families started the season without any advances, hoping to receive them a few months later. Since in many cases wage advances are used to pay off past debts, we suspect they had to postpone debt repayment, which may have incurred additional costs. Some accepted considerable amounts of old cash – up to 1.4 lakhs in the cases we encountered (approximately 1840 euros), which is the equivalent of around two seasonal wages for a household – with the idea of not turning up the following year…

It also seems that new forms of temporary bondage emerged. For instance, some contractors were desperately trying to get rid of old notes: they did so by forcing large advances – up to 30,000 INR – onto casual workers, while advances are rather unusual in this sector. Later on, the workers were obliged to work for the same contractor, while covering the cost of the sale of the old notes. Conversely, some brick kiln migrants, being unwilling to support their employers by laundering money or simply not wanting to receive advances in old notes, accepted a smaller advance and negotiated their salaries in exchange. This unusual negotiation over wages in a well-oiled system, where advances are a strong way to control and bond the labour force, may to a certain extent increase bonded labourers' bargaining power.

Beyond wage workers, small businesses have also had to adapt in various ways. Shopkeepers were already used to selling on credit, as a major source of client loyalty. 18 percent of our post-demonetisation interviewees stated they were buying less on credit, while 10 percent declared the opposite. Qualitative analysis confirms this range of scenarios, both with regards to consumers and shopkeepers. Behaviour is closely related to the issue of trust and the wider networks in which people are embedded. Some shopkeepers, being unable to access credit from their wholesalers, had to reduce their sales and could not afford to sell on credit. Others, by contrast, have considerably extended their repayment periods thanks to their credit facilities, but usually only to their most faithful customers. We assume that Dalit shopkeepers were hit much harder, since they usually enjoy far fewer credit facilities than non-Dalits. We encountered households which had not paid their shopkeepers for the past two months. Consumers who had cut down on their purchases on credit had done so either forcibly – no longer being eligible for credit – or out of choice, thanks to their increased access to other sources of cash locally. Informal local moneylenders explained to us that demonetisation had pushed them to repatriate their activities locally, as restricted activities were considered safer.

Meanwhile, the lucky ones who were managing to get cash were able to lend to others. This was the case for example for government employees, who are usually paid by cheque or wire transfer. In the wake of several public demonstrations, public administrations organised cash payments for their staff. In our survey area, administrative jobs are rather limited, but money-lending still increased after demonetisation: the proportion of households declaring they lent money to others more than doubled, from 5 to 11 percent. [7] Half of the lenders work in brick kilns. It is likely that they used their large advances to lend the money on. The others are self-employed (in sculpture, grocery shops, contractors), or are farmers. Although our data are limited in terms of number of observations, they suggest that there is a high level of intra-caste and gendered mutual help, in line with our results above on the exchange of old notes.

Was trust in people put to the test?

While networks have probably been instrumental in coping with the shock of demonetisation, not all households were equally equipped for it, however. One of the effects of demonetisation has probably been to strain pre-existing networks, and therefore to put interpersonal trust to the test. From NEEMSIS, Hilger and Nordman (2017) use three different measures of trust, which are all related to interpersonal trust, i.e. trust in other people: "1. People in my neighborhood can be trusted"; "2. Among employees, kin member are more trustworthy than other non-kin members"; and "3. Are you generally trusting of other people?", which measures "generalised trust" as typically found in international surveys, such as the World Values Survey (Table 1).[8] In general, being survey questions and not results from a trust game, all three measures capture a combination of people's beliefs about others trustworthiness, betrayal aversion, etc. (Glaeser et al., 2000; Fehr, 2009). These three questions represent different aspects of trust in others that are important in the context of rural South India. Table 1 shows that while generalised trust and trust in neighborhood seem to have decreased significantly if we compare individuals asked before and after demonetisation, the reverse is true for the type of confidence given to the close community, i.e. the kin.

Table 1. Three different facets of "trust in other people"

	Before demonetization		After demonetization			
	Mean	Std Dev	Mean	Std Dev	Diff	Std Err
Trust in neighborhood	2.13	0.04	1.99	0.06	0.14	0.07
Trust in kin	2.52	0.98	2.69	0.84	-0.17	0.07
Generalized Trust	2.85	0.03	2.71	0.05	0.14	0.06

Source: NEEMSIS 2016-2017; Hilger and Nordman (2017)

[7] Because of the stigma associated with moneylending, these data are likely to underestimate the true importance of lending among villagers, either before or after the demonetisation. But the comparison is interesting and shows an increase.

[8] Answers for all three questions were recorded on a Likert answer scale ranging from completely disagree to fully agree and standardised in the empirical analysis for easier interpretation.

The short additional demonetisation module contained questions about whether or not individuals thought demonetisation influenced their answers (so in addition to the simple questions on their levels of trust reported in Table 1).[9] Hilger and Nordman (2017) show that, contrary to what is revealed in Table 1, broadly most individuals *did not think* demonetisation changed their levels of interpersonal trust (Table 2). Among those who declared having experienced a change in their level of trust, the share of individuals experiencing a positive or negative change is almost similar for neighborhood and employee trust. By contrast, the change is overwhelmingly negative for trust in banking institutions: 24 percent negative change, against 7 percent positive change. This shows that measures of trusts that were related to formal institutions, i.e. trust in banks, but also trust in associations (not shown), were the ones who were directly influenced by the demonetisation policy. On the contrary, trust in community was rather shaped by the characteristics of the network (caste, resource content, strength of ties, etc.) and demonetisation seems to have greatly shifted the choice and the extensive and intensive margins of network use due to the shock.

Table 2. Changes in the level of trust (post-demonetisation sample only, %)

	Trust in neighborhood	Trust in employees	Trust in banking institutions
Increase	10.6	11.8	7
Decrease	15.0	14.3	23.7
No change	74.4	73.9	69.3
Total	100	100	100

Source: NEEMSIS 2016-2017; Hilger and Nordman (2017) and Guérin et al. (2017b)

This argument leads Hilger and Nordman (2017) to make causal inference between the degree of use of social networks and interpersonal trust, using the demonetisation shock as an exogenous source of variation. The idea is that it may be unlikely that demonetisation changed beliefs about others trustworthiness as such (which would mean changing the component of trust related to people's preferences), but it may rather be more likely that demonetisation changed the beliefs about others trustworthiness only through the fact that the shock increased the likelihood of interacting with others, thus using networks much more intensely. In this process, some people have been able to activate their networks, while others have rather failed. Other figures confirm this finding (Guérin et al., 2017b). Among the post-demonetisation respondents, almost one third needed some help during the process of demonetisation: 10 percent asked for help and got it, 18 percent had no-one to ask, while 3 percent asked for help but were refused. This suggests that interpersonal relationship networks helped partially mitigate the harmful aspects of demonetisation, while excluding those without anyone to count on.

Conclusion

The demonetisation of November 2016 in India was supposed to contribute to the formalisation of the Indian economy, which in turn was expected to benefit the poor. However, as no extra effort was put in to formal social protection, the policy mostly caused an expansion of the informal economy, especially – but not only – in informal debt. Historical forms of inequality in Indian society have probably been reinforced, while new ones have emerged. Different analyses, based on quantitative and qualitative fieldwork conducted before, during and immediately after this policy shock in rural Tamil Nadu, recall that most Indian villagers are embedded within complicated webs of rights and

[9] The question was asked after the answer was first elicited and should therefore not frame the answers to the trust questions themselves, meaning they remain comparable between the pre- and post-demonetisation samples.

obligations that ensure their daily survival through the constant circulation of cash, goods and services. While state social protection is weak and government schemes are known to adhere to networks of patronage and clientelage, having a dense network of relatives, friends, acquaintances, and patrons ready to help when needed, remains the key way of securing everyday life in rural India. This social regulation of the economy has given rise to a form of social protection, which is however flawed, hierarchical and unequal. Hence, while social networks have been instrumental in coping with the shock of demonetisation, not all households were equally equipped to do so. Interpersonal relationships of gender and caste have partially helped mitigate the harmful effects of demonetisation, but excluding those households without anyone to count on.

Monetary surplus were injected into networks through gifts, loans, or wage advances. In fact, saving is first and foremost relational, taking the form of investment “in people” (Guérin, Kumar and Venkatasubramanian, 2016). The nature of these networks however is very diverse. Some are clearly based on hierarchy, i.e. on caste, patriarchy or social class, and any new loan or wage advance strengthens the borrower’s inferiority, whether through high interest payments, free services or new features of labour bondage. Other financial transactions are instead based on solidarity and reciprocity, expressing the so-called redistributive nature of social networks (Nordman, 2016), and are most often found within caste and kin.

Such unequal network access and use, in a context of a monetary policy shock, is a novel finding to have emerged from our data from rural Tamil Nadu. Although further confirmation is needed through supplementary fieldwork and long-term observations, perhaps in other contexts and locations in India, our observations have highlighted the unanticipated impacts of demonetisation. Additional qualitative data indicate that surplus cash holders, big entrepreneurs in particular, not only got rid of their old notes quite easily thanks to various tactics and networks, but further more they used the monetary chock to tighten their control over various informal (and illegal) economic networks (Guérin et al., 2017b). Hence what really seemed to have happened, instead of a clear movement towards more formalised economic transactions, has rather been a reinforcement of the informal economy (at least in the short term), which is the very thing that allowed actors to temper the violence and harmful consequences of the shock. If the rule of law is weak or inexistent and cannot guarantee the enforcement of contracts, if social protection is inexistent and cannot guarantee the protection of workers and their families, social networks, organised along the lines of social institutions such as caste, class, religion, kinship, gender and locality, are the sole mechanisms for filling the gap and providing a secure environment. But they often do so in partial, arbitrary ways that primarily serve their own interests.

Social interactions lead to heterogeneous effects of public interventions, which in turn produce effects that may contradict their initial and official objectives. These unanticipated consequences were observed in the short term (and in one particular place in India). Now it remains to be seen what will be the effects in the long run and at the all India level.

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